AN INTRODUCTION TO

THE COMPARATIVE PHILOLOGY OF INDO-ARYAN LANGUAGES

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POONA

THE ORIENTAL BOOK AGENCY

1932

Published by: Dr. N. G. Sardesai, L. M. & S., Oriental Book Agency,
15 Shukrawar, Poona 2 (India).

Printed by: S. R. Sardesai, B.A., LL.B., Navin Samarth Vidyalaya's
Samarth Bharat Press, 947 Sadashiv Peth, Poona 2

PREFACE

All originality, some one has said, is only un detected plagiarism, and all text books, one might add, are plagiarism only not to be detected The object of a text book is two fold, (1) to supply the student with available materials systematically arranged, and (2) to attract him to the particular study The present volume makes an humble claim to have been written with both these objects in view As for the materials I have freely drawn on all available and authoritative information In that respect I am indebted more than to any book or author to Professor R L. Turner, of the London University, under whom I had the privilege of studying for three years. In the treatment of the Indo Aryan languages especially I have merely groped in the field he has cleared As to the arrangement and certain conclusions (as in the introductory part) I alone am responsible. In Part I *b*, Part IV and in the Appendices, on the whole, *readers will find views and interpretations which have been advanced for the first time and for them the author alone is responsible*

While original books need no excuses text books stand in need not only of excuses but of justification The present volume is—probably—the first attempt to acquaint the Indian students not only with the principles of Comparative Philology but with the history of the comparative growth of the Indo Aryan languages of India Throughout the book the Indo Aryan languages have been studied and illustrated with all possible details

One thing will have to be specially explained here In the last part of the book many students might find the narration rather hurried There are more reasons than one In the first place authoritative information on comparative morpho

logy of the Indian Languages is scantier than that on Phonetics; secondly, the present writer is engaged on an exhaustive volume on the same subject and hence it was thought fit only to summarise the issues; and lastly, as the treatment seems to be systematic in spite of all that it is hoped that it would not only inspire the students to work in the field but would also indicate the lines of that work.

It would be surprising if the book were entirely free of defects. Besides, the writing of it has extended over a long period of routine work. The author would be grateful for sympathy and suggestion.

The credit, however, of the present volume belongs to somebody else. It was the idea of Dr. N. G. Sardesai of Poona that a book like this should be written. The initiative was entirely his. Thanks would be inadequate for the help, interest and sympathies he has spent on the present writer. Suffice to say, but for him the book would not have seen the light of the day. Nor must I conclude these prefatory words without offering my best thanks to Mr. S. P. Sardesai, B.A., LL.B., the enterprising manager of the Samarth Bharat Press, as my demands on him were exacting in as much as he had to cut new type for diacritical marks involving complicated accentuation and had to bring out the edition to my complete satisfaction within the limited time at his disposal. I once again take the opportunity of thanking Prof. R. L. Turner who initiated me into this interesting work. Lastly—though as usual—I should thank myself—but no, those thanks I reserve till the second object of the text-book is achieved.

Karnatak College,
Dharwar,
8-8-1932

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AN INTRODUCTION TO

THE COMPARATIVE PHILOLOGY OF

INDO-ARYAN LANGUAGES

PART I. INTRODUCTORY

1. Language

To define a thing, a thought or a conception is just to put limitations on our own outlook or understanding. Definitions have not only ceased to be a fashion but are positively to be considered unscientific as long as Science stands for honest pursuit of knowledge. Thousands of years of honest labour and expert research have only revealed to us the fact that the more we know, there is much more still that we do not know. These ought we to know and not to leave the other unknown. Till then definitions would be the least definite way of understanding things.

We do not offer these remarks in apology for not attempting to define Language There could be as many definitions of Language as there are languages; there are as many forms of languages as there are human organs. Language might be the expression of thought by speech sounds (cf. *Sweet*, p. 1); or just "un systéme des signes" (cf. *Vendryes*, p. 8) Language may be as well defined from the speaker's as from the listener's point of view. But besides and beyond the various view-points stands the fact that Language is an intelligible medium of transmission of impressions and thoughts. It would not be out of place to emphasise that transmission more than expression is the distinctive, if not the inherent, feature of Language; and intelligibility its *sine qua non*. If Language were just an expression of thought by speech-sounds, there would be no grammars to tax the memory and no dictionaries to tax the money of the truant and the poor. But mutual intelligibility has asserted a sort of social censorship over Language with the result that the domain of Language is ruled not [illegible] intelligible anarchy nor by an uncontrollable [illegible] beneficent and organic oligarchy.

2. Its Origin

It is not as easy, however, to determine the origin of l guage as to define its characteristics. "The question of origin of Human Speech will never be solved, and wise are satisfied with noting its phenomena without attempting explain the inexplicable. The many theories that have b propounded range from the pious belief that speech divinely conferred on man to the crude assertion that wo with all their possibilities of beauty, their infinite powe expressing the most subtly differentiated ideas, have b gradually evolved from the grunts and howls that primi man had in common with beasts. This latter theory, which longs to the evolutionary school of the middle of the 19th C tury, is sometimes referred to as the "bow-wow theory" name coined for it in 1864 by *Max Müller*." ("Adjecti and Other Words"—by *Earnest Weekley*). The author of th remarks probably intends to magnify the difficulties in our w We are neither crude nor pious (piety and crudity, howev have one and the same mental background); nor would contribute to the "Never-Theory" of the Origin of Langua

Since the scientific outlook set in, the old, old problem seeking unity in variety is being tackled with by systema methods. Nature is no more a bundle of capricious vagari but one living organism. What is needed is a revised and enla ed edition of the Laws of Nature but embracing its vario branches and aspects. For this work, analytical study is nee ed. The process is mainly inductive. From the known we wo back till we can generalise the unknown. Till the facts a exhausted the question—what is the origin of Language?—ca not be answered satisfactorily. The various languages of tod are grouped into certain families of languages. These latter a supposed to have developed from a common source. Even th one may legitimately ask if the spoken speech-form is the or ginal language. Is the gesture-language earlier than the spoke language or *vice versa*; or have they a separate or a simultan

ous growth? Even comparative study of languages, by its attempts to postulate or re construct a common primitive tongue, cannot explain the origin of Language though it may furnish a hypothetical sample of an earliest speech form

3. Its Growth

To follow our method, however, we have to leave aside the question of the origin and study that of the growth of Language In the world we live in we find various languages, many of them highly developed and organised Scholars of Comparative Philology have been able to group them into families of languages, each family tracing itself back to one common ancestor Thus, for example, we know the Indo European Family, the Dravidian, the Semitic, the Bantu and so on How originally one language came to develop and assume so many forms, different and distinctive, is the object of study of Comparative Philology. An attempt is made in the following pages to study the same in relation to one group *viz.* the Indo Aryan When and if the same is done in relation to other groups and the field of our labour thus narrowed from all sides, then and then only could we hope to spot the main spring.

We have referred above to certain groups or families of languages It is the usual mistake in speaking of a family of languages to establish a parent and child relationship between the early and the subsequent languages There is no such relationship *No language is produced from another earlier language.* It is rather one original language which in its march assumes different forms due to peculiar preservations, common innovations and some such factors In this respect language can best be compared to a river A narrow stream of water at the mountain top develops along its course into a mighty river with tributaries In passing through different soils it shows a different colour and gives a
taste Like the river, too, a language rushes
grounds and sinks deeper into soil But

language *necessarily* multiplies in its growth. This method c multiplying can be said to be the same as "the method use by the smallest and simplest of creatures......by splitting th whole body....In such cases the offspring is not merely detached part of the parent; the whole substance of the paren becomes offspring. The parent leaves no corpse. It cease to exist; but for it there is no death—only duplication." (Science of Life. Vol. I. p. 283). Primitive organism seems t have grown and reproduced in this way.[1]

4. Causes of Change

If, for example, we compare Vedic with one of th modern Indo-Aryan languages, we could hardly believe tha both not only belong to the same group but the latter have evolved out of the former. Despite the superficial similarity of sounds and stray sound-combinations the offspring is grown out of all recognition of its parent. Yet in essentialities (as will be shown later) they are closely related. What then are the factors that effect such a change in a given language? Is there any system along which languages undergo changes or do they just submit to the arbitrary whims of an individual? To find the system, if any, we will have to study the answer to the first question first.

What are the factors that introduce changes in a Language?

A language is eternal and evanescent. It is eternal in the sense that despite the tremendous changes, both internal and external, it is still felt to be only itself. In relation to the individuals that speak it, it never dies. But still it is evanescent. It exists only for the moment. Each individual creates it anew every time he speaks it. Each generation has to create its own language. It is this fact more than

1. Cf. "Language is a natural organism; it lives like other organisms; although its mode of action is not that of man. The science of this organism belongs to the natural sciences and the method by which it must be treated is that of natural Science." *Schleicher.*
—*Delbruck.* Introduction to the Study of Language. p. 4[?].

anything else that introduces changes in a language No man can produce sounds exactly similar to those of another man No child can imitate with absolute perfection the sounds of its parents It is rather the deliberate attempts to reproduce exactly another man s sounds that lead to bring in changes. But changes introduced in this manner are not only slow but work under constant social censorship Though a child introduces so many innovations in its early career all of them do not survive Only those that are common with other members of the society or generation or those that deviate so slightly from the sounds of the older generation as to be unnoticeable, persist. Besides there is the problem of intelligibility An individual innovation not being intelligible to others dies an inevitable death. So, although "the real cause of sound change seems to be organic shifting, failure to hit the mark, the changes do not survive unless they are influenced by some other factors like analogy etc (See below)

Simplicity is another cause of sound change "Convenience," says *Curtius*, is and remains the chief factor in phonetic change under all circumstances [1] Language is just a means to an end The chief thing is the intelligible transmission of an idea Language thus occupying a secondary position it should not be surprising if a speaker, as long as his idea is clear to the listener, is not diligent or particular about the sounds he employs A wave of hand might convey more than a command in the loudest voice, a brief period of silence might contain columns of eloquent criticism. By nature man is economic (a polite periphrasis for laziness) Whether he follows the Principle of Least Action or believes with *Ribot* that mental inertia is the law of least effort, nevertheless it is a fact that a man would rather idly slur over his sounds than speak in distinct tones if his object is achieved both ways It is needless to illustrate this point. When, for example, we hear the sounds *wa : si*, does any one hesitate to understand it as equivalent to

1. *Grundzuge* · p 23 Note

the phrase, *what is it?* It is due to such lethargy (or say economy) that we find languages having enclitic words or weakening and then losing their terminational endings.

Usage affects a word as well. The more a word is used the less articulate it sounds. Familiarity leads to simplicity; simplicity breeds indifference. It changes as if capriciously. The first personal pronoun, for example, is a form that is used much more frequently in any language. It seems to have changed in an arbitrary way in many cases. Skt. *aham* (अहम्) I, becomes simply *ham* in Hindi. The forms like *mam* (मां acc. sing.), *mayā* (मया instr. sing.), *mahyam* (मह्यम् dat. sing.) etc. of Skt. *aham* have helped Marathi to have *mī* (मी) I, in the nom. sing. The Sanskrit phrase *yātaḥ āsīt* (यातः आसीत्) he went, became *jado asi* in Prākṛt but was fixed as one form in the Romani as *jalas*. Such changes are " spontaneous linguistic evolution ".

There is a tendency to avoid harsh and difficult sounds. In Vedic, for example, we find consonantal groups of various permutations either initially or in-between vowels. In most of the modern Indo-Aryan languages these have been softened, assimilated, or have altogether disappeared. We shall have to note these in another place.

Accent or stress is another factor that introduces sound-changes. In stressing a particular syllable the speaker glides over the others with the result that the unaccented syllable is either weakened or entirely disappears. Usually the syllable preceding the accent is weakened and the one following gradually drops out. (cf. *Turner*. J. R. A. S. 1916. Vol. I). *Verner's law* is the best enunciation of this phenomenon.

Borrowing too is a feature that contributes to changes in the borrowing language. Individual words borrowed from a foreign (*i. e.* belonging to a different family) language do not affect the structure of the borrower. But a neighbouring language might affect even morphology and syntax.

(6) A language belonging to a superior culture affects that of the inferior, similarly a conquering race leaves traces of its language on the tongue of the conquered. In both these cases the changes would be due to new thoughts, new conceptions or foreign outlook. Even here individual words borrowed submit to the phonetic laws of the borrowing language. But whenever the influence is penetrating and dominant we find that the inferior or the conquered is affected right to its heart and lungs. For example, Indians who study English from an early age and continue it later to the neglect of their mother tongue are found to be introducing new and foreign *tours de phrase* in their own dialects. In the present Renaissance of so many vernaculars this phenomenon can be easily detected.

5. Phonetic Laws

With the above discussion in our mind, we shall now take into consideration our second question, *viz.*, Is there a system underlying these linguistic changes? For an easier understanding of what follows, it would be better to start with a concrete example. Take the following three synonymous words Eng. *first*, Skt. *prathama* (प्रथम) and Mar. *pahilī* (पहिला). The initial sounds in these three words resemble one another rather closely. Now, as a matter of fact, in no language is there any necessary relation between words and their meanings. Sound and sense are not connected by any absolute link. In the Sanskrit word *prathama* (प्रथम) *there is nothing in its sounds that* would at once conjure up an idea of "first ness". To a man

1. The above is only a general survey. For fuller and illustrative treatment of the same, see Part III.

ignorant of Sanskrit, *prathama* (प्रथम) has nothing inherently suggestive in its sounds. Still we find words like :

Skt. prathama (प्रथम): Eng. first.

Skt. pṛcchati (पृच्छति) : Aves. p^{ə}r^{ə}saiti ('he asks'): Lat. porsco : Hindi. puchnā.

Skt. śvā (श्वा), a dog : Gk. kuon : : Skt. śuna'ḥ (शुनः gen. sing.): Gk. kuno"s.

Skt. asmi (अस्मि) ('I am'): Gk. eimi : Lat. esmi : Eng. am.

Skt. santi (सन्ति) ('they are') : Lat. sunt; etc.

When we thus find that in spite of the "uniqueness of linguistic phenomena " (*i. e.* absence of any necessary link between sound and sense) there are close similarities even in small details (cf. *e. g.* Skt. and Gk. gen. sing. forms above) the obvious conclusion would be that the languages under consideration are in some way or other related to one another. Sometimes it happens that by accident we find two languages representing the same idea by the same sounds. (See *Meillet.* p. 3). Thus the sounds " b-a-d " in both the English and the Persian convey the same sense. This, as Prof. *Meillet* says, is simply a "jeu de la nature." Though "uniqueness " in itself cannot establish any conclusion about the relationship of languages, it is a noteworthy feature of importance in the study of linguistic development.

Another feature of the growth of language is "Regularity of Development." If a particular sound undergoes a particular change, it does so consistently under all similar circumstances. Exceptions do occur—exceptions, so to say, only to prove the general rule. They are not, however, instances so much of deviations from the general rule as of the results of peculiar or particular circumstances. We shall speak of them in their appropriate places. Here it should only be noted that whether a particular sound is preserved, conserved, or innovated it is done so under all similar circumstances. Such "rules under which the preservation, conservation or innovation takes place are called phonetic laws or laws of sound-

change." They are only rules emphasising the *regularity of development*. They cannot accurately be termed "laws" (cf. *Vendryes*. p. 50). They are evolved from the study of the past; they are not enunciated for guidance in future. They can be called laws only in so far that they have been obeyed, not that they ought to be obeyed. It is better to include such features under the *system of Phonetic change*.

Continuity, not persistence, is the phase of linguistic development. For an individual "language is a complex system of unconscious associations between movement and senses." (*Meillet*. p. 5). This system, though imposed as rigorously as any other institution, is not transmitted whole or directly from one individual to another. A child, when he hears his elders, does not attempt to imitate a particular sound but a group or association of sounds. The "verbal image" is there in the child's brain while it is endeavouring to reproduce it in phrases. As soon as a child hears, for instance, the word *gauḥ* (Skt. गौः), a cow, he forms in his brain a thought-photograph of the particular animal. But in attempting to say "*gauḥ*", he might falter into *bauḥ* etc. That makes no difference. "*Bauḥ*" would still mean what the word "*gauḥ*" meant. Thus it is *not only particular activity but an impulse to such activity* that is transmitted. It is this fact that makes linguistic development a continuity. Impressions stand erect like a light-house while expressions flash out in different directions.

6. Families of Languages

What is the significance of this uniqueness, this regularity and this continuity? We know that there is no necessary connection between sound and sense; and yet we find different languages representing the same idea by similar sounds. We can no longer say that such similarities are due to capricious chance when we know that linguistic development is characterised by regularity. Persistent accidents are no longer dents but instances of a general rule

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or Hindi, recognise only two genders. Even coincidences of vocabulary are not worth much in this respect, for vocabulary is more liable to be influenced by borrowing. It is, however, in small details that one could hope and be justified to find trustworthy evidence. The best form of proof can be found in such examples as

Skt. asmi (अस्मि), I am; Gk. eimi; O. slav. gesmi; Eng. am; I. E esmi.

Skt. asti (अस्ति), he is ; Gk. esti; O. slav. gestu; Eng. is; I. E. esti.

Skt. bhavati (भवति from √Bhū (भू), to become); Gk. e'phū; O. slav. bilu (he was); Eng. to be; I. E. bheweti.

Skt. a'bharat (अभरत्); Gk. e'phere; Lat. fēced; Arm. eber.

Skt. aham. (अहम्) I; Gk. ego ; Lat. ego; Eng. I.

Skt. mām (माम् acc. sing.); Gk. eme; Lat mē: Eng. me.

Skt. vayam (वयम्); Eng. we.

Skt. janaḥ (जन: people; nom. sing.); Gk. ge'nos; Lat, genus.

Skt. janāsaḥ (जनास: gen. sing.); Gk, gene (s)-os: Lat. generus; etc.

In general, if, in any language,

" (1) the word-bases or roots...are prevailingly the same as those which appear in other Indo-Germanic (or I. E.) languages,

(2) the manner in which nouns and verbs are formed from these bases is that which appears in other Indo-Germanic languages,

(3) the changes which words undergo to express various relations within the sentence are of the same kind as in other Indo-Germanic languages," (*Giles*, p. 13),

then that language can be assigned to the Indo-European family.

But so far the earliest known Indo-European languages are the eight mentioned above. Besides these, the oldest

known I E documents are the clay tablets—found at Boghez-Keuoi Their approximate date is about 1400 B C (C. H I Vol I p 72) Certain declensions, conjugational forms and other particulars support the assumption that the language of the tablets belongs to the I. E. family For example we have a word "*weder*" meaning "water" which has a genitive singular as "*wednez*" (cf. Vedic *udar* (उदर्) water nom. sing and *udnah* (उद्नः) gen sing.) We have a masculine *kvis*, who, but the corresponding neuter is *kvid*, what, [cf Skt. *katarah*, (कतर.) who (m.), but *katarat* (कतरत्) what (n)].

The Italic and the Celtic

More definitely known documents are the Indo Iranian, the Greek and the Italic Celtic and Italic had a certain period of common development [1] The most important member of the Italo Celtic group is Latin which originally is a local dia lect of the Romans Documents of 200 B C are available for this Latin Of the branches of the Celtic group proper, the Gallic survives today only in a few proper names Gaelic, spoken in Ireland, is known from the fourth century A D, Brittanic, Welsh, Cornish and Breton are the other offshoots of Celtic

Germanic

Germanic too offers no documents of pre christian date. For Gothic a translation of the Bible belonging to the 4th Century A D is available The North Germanic—the ancestor of Swedish Icelandic, Norwegian and Danish languages—has inscriptions dating back to the 3rd Century A D, while the earliest document of the West Germanic is offered by the High Germanic of the 8th Century The earliest literature of the Low Germanic belongs to the 9th Century A D Modern German goes back to the old High German and modern Dutch to the Low German Besides High and Low German, West Germanic developed into Frisian and old English

1 For further details on this and the following see *Meillet*, pp. 41-53

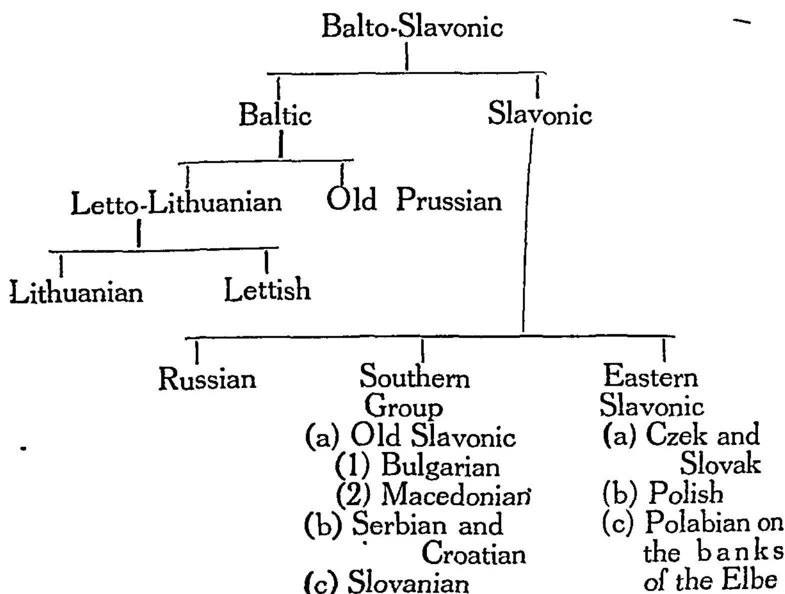
Greek

Far older than the Italo-Celtic or the Germanic are the Greek documents the earliest of which go back to the 7th Century B. C. Ionian, Attic, Doric and Koinē (founded on the Attic) are the chief Greek dialects. The last named has developed into modern Greek.

Balto-Slavonic and Albanian

In contrast to the Greek stand the Balto-Slavonic and the Albanian whose known documents go back only a few centuries. Albanian is not known till as late as the 17th Century A. D. It is now spoken in the N. W. of the Balkan Peninsula. *Albanian has entirely changed its phonetics.*

In the Balto-Slavonic two distinct groups can be observed. The following table shows its various developments.



In the Baltic, Lithuanian is the most archaic of all. It has preserved even to this day forms like *esti* (Skt. *asti* (अस्ति) he is), *gyvas* (Skt. *jīvaḥ* (जीव:) life etc.). Both Lithuanian and

Lettish are documentarily known only from the 15th Century A. D, while a translation of the Bible in the old Slavonic goes back to the 9th Century A D

Armenian

Armenian is known earlier than both the Balto slavonic and the Albanian There is an Armenian translation of the Bible belonging to the 5th Century A. D

The Indo-Iranian

The Indo Iranian shows in the main two different developments—one in Persia and the other in India. The people speaking both these languages were probably known as Aryas. Evidence is not lacking to hold that the Indian and the Iranian tribes long flourished together. The modern word *Iran* goes back to an earlier form *Eran* which was the genitive plural form in mid Persian corresponding to the Skt. genitive plural *āryānām* Within the Iranian itself two distinct developments can be observed One is the old Persian known through the inscriptions of king Darius Belonging as they do to the 6th Century B. C, these inscriptions are the oldest dated texts of the Indo European family. When in the 3rd Century A. D. the Achemeneid dynasty was succeeded by the Sassanid dynasty the old Persian appeared as Pahlavi, this latter being less archaic. Modern Persian, however, can be said to begin from the 9th Century A. D. The other member of this group is the Avesta of Mazdeans the text of which was fixed in 220 A D. The materials, however, are much older than the texts as can be witnessed from the language of the Gāthās Modern Iranian has developed from this Avesta-the language of the Gāthās

8 The Indo-Aryan

It was mentioned above that the Indo Iranian h. ' two different developments One, as has been ' ' was the Persian. The other was the d ' penetrated and gradually spread over

of the sub-continent of India. The earliest documents of this branch—known as the Indo-Aryan—are the hymns of the Ṛgveda though the earliest *dated* documents are the Asokan Inscriptions of the 3rd Century B. C. Even the language of the Vedic hymns cannot provide the earliest dialect. It is highly developed and presumes an earlier stage. Moreover, there are traces of more than one dialect in the Ṛgveda itself though, on the whole, that Veda can be supposed to have been written in one of the dialects then current. The Asokan Inscriptions show as well a state of much dialectic variations. As regards the Prākṛts the early documentary evidence does not go any further than the few samples of different literary Prākṛts employed in Sanskrit dramas. Thus, it should be made clear in the beginning, the literary documents do not provide us with sufficient materials to re-construct the history of the Indo-Aryan branch from its first days.

9. The Three Periods

Scholars have found it convenient to divide this history into three periods. This division is rather *one of Stages than of Periods*. Anyhow it is mainly historical and renders our study much easier. The first is the Primitive Indian Stage from the Vedic times to the Inscriptions of Asoka. The Middle Indian Period opens with these latter Inscriptions, covers entirely the Pāli and the Prākṛts and ends with the Apabhraṁśas mentioned by Hemacandra. The *Modern Period* begins approximately at about 1000 A. D.[1] The development of the Classical Sanskrit belongs to the *Middle Period*.

We do not propose here to deal either with the Phonetics or with the Structure of the above languages. A detailed and comparative study of the same will be made later on. Here the general features and the mutual relations of these dialects from the Vedic to the modern times will be reviewed under the meagre light of historical evidence.

1. Cf. *Chaterjee* : Introduction.

10 A Linguistic Chain

The dialect of the Rgveda continues with minor deviations through the other Vedas upto the Brāhmanas and the Samhitās The first noticeable changes begin to appear in the Upanisadic and Pali stage and by the time of the Asokan Inscriptions and the Great Epics many of these changes have been consolidated and assimilated When we come to the Prākrt stage we observe that not only is there a big gap in form and structure between the Vedic and Prākrt but that the Prakrt itself shows such variations as to warrant the existence of different dialects Bharat enumerates seven of such dialects

मागध्यवन्तिजा प्राच्या शूरसेन्यर्धमागधी ।
बाह्लीका दाक्षिणात्याश्च सप्त भाषा प्रकीर्तिता ॥

To these Hemacandra adds Paisāci and Lāṭi

Most of these have individual literary careers and have developed into the modern Indo Aryan languages At the present time we have in the centre of the sub continent, the Hindi group To the north and north west it is bounded by the Panjabi Lahnda Kashmiri and the Dardic group Eastwards have spread Bihari Bengali and Assamese—themselves skirted to the north by Nepalese Sindhi and Gujrāti are the two big groups of western India As we go to the south we meet Marāthi Outside the sub continent proper Sinhalese in the south and the Romani languages of the Eastern Gypsies belong to the Indo Aryan stock.

11 The Early Invaders

Here again an attempt will be made first of all to sketch in outlines the general features of the various dialects But before that the aid of history would be called in to see if and how far the social and political life of a people would affect the growth and development of its language

It has been mentioned above that the hymns of the Rgveda were not written in one language in

language of the hymns represents more than one dialect. As to the part of the country—the locality—in which these hymns were composed, scholars do not agree either in the first or in the last word of the question. From Central Asia to the banks of the Ganges, every probability has been suggested, stretched or applied. There would be no hesitation, however, in disbelieving the improbable suggestion that the whole of the Ṛgveda was composed in one place or during one period. Without entering into the details of the discussion, it would be reasonable to accept the view that "the bulk at least of the Rigveda was probably composed round about Saraswati, south of Modern Ambala," (C. H. I. VOL. I. p. 79). Later on, this locality came to be known as the Middle Country—the Madhya Des'a—, and became the centre of Brahmanic culture and learning (Manu. II. 17–18). Here the Aryan invaders—the more adventurous among them—came and settled. It would not be improbable if, during their march into India from the north-west, the invading tribes left behind some of their own brethren—those desirous of an early settlement—in the extreme northern regions and scattered away as well as they advanced, the original tribes, if any, in all directions. This latter feature is in agreement with the "wedge-theory" of *Hoernle*. The Dardic group bears witness to the fact that the people who speak them belong to the oldest invading tribes. The aborigines were not the only enemies of the Aryans. In the Ṛgveda we find the early Aryans fighting among themselves. These battles were probably fought between the Aryans on the frontier and the Aryans in the interior of India.[1] Moreover, it seems that the priestly class, once it settled down in the (later) Middle Country, set to consolidate its position and assert its domination. By the lapse of time and distance from the hardy primitive life,[2] the Aryans of the Middle Country

1. Cf. the episode of the Battle of Ten Kings. R. V. VII. 18, 33, 83.

2. Cf. Manu's advice to a king in enlisting soldiers for an army (Laws of Manu. VII. 193).

were not the same virile and adventurous souls. They took to poetry, philosophy, sport and sacrifice, all opulent arts of indolence and indifference that flourish in peace but finish in war.

There were, however, certain elements that retained the old migratory habits and loved the old adventurous ways. What wonder if they resented the newly arisen self complacent inactivity and pedantic domination? Was it not on the banks of Paruṣṇi that Vasistha and Visvāmitra fought in rivalry—a fight that was only a legendary symbol of the revolt of the Kṣatriyas against the priestly class? These Kṣatriyas were later joined by other invading tribes—probably the ancestors of Pāṇḍavas[1] Having fought the issue they started on their advance to the east and the south There are no reasons to doubt that the rebellious elements referred to above were mostly composed of the Kṣatriyas[2].

12 Eastward and Southward

Of course, all this happened some eight centuries before our era The eastern advance seems to have been undertaken earlier than the southern for, as early as the sixth century B C we find these adventurous people—like the Pilgrim Fathers of *May Flower* 2000 years after—establishing democratic principalities in the east (C H I VOL I. Chap VII) The southward advance did not attain much intensity till the missionary embassies of Emperor Asoka.

1 The epic war between the Kurus and the Pāndavas represents a war between the Middle Country on the one hand and the South East, North East and West on the other i e between the Kurus who were long established from the days of the Vedic Bharata tribes and the Pāndavas, the sons of an adventurous Prince from the north

2 Cf 'The superior position of the Khattiyas in the eastern countries and the corresponding decline of Brahmanical influence present themselves to us with irresistible necessity when we study the Pāli literature, even the Jātakas affirm the correctness of this view " —(*Fick s* Social Organisation by *S K Maitra* p 85).

As Buddhism lost more and more ground in India the Buddhists retired into voluntary exile to Ceylon in the south and to Tibet and China in the north.

13. Classical Sanskrit and Pāli

These events had a great influence on the course of linguistic development. In the Middle Country the Brahmanic culture was nourished and nurtured by the priestly class in poetical, philosophical and, above all, in sacerdotal works. As a result the dialect of the *Madhya Des'a* was soon highly developed; but the development itself was on lines different from those of others. The very nature and contents of the Brahmanic literature precluded that language from being anything nearer to that of everyday life. As time went on, it became more and more literary; the more literary the style, the more stereotyped was its form. Ultimately the grammarian Pāṇini had to distinguish this stereotyped language from the spoken tongue–the *Bhāṣās*. The language was now so fixed as to enable and justify Pāṇini to analyse and restrict it further with the observed phenomena that were embodied in rules of grammar. Since those days it is *not a language of life but a language of Art—of belles lettres.* To distinguish it from the Vedic Sanskrit modern scholars have termed it as Classical Sanskrit.

But the story in the east is quite a different one. Here the warrior tribes came in contact, conquered and ultimately lived with the less civilised tribes that came in their way. The literature of the east was therefore a *Saga* literature, a popular literature, a literature of lyrics and ballads where Kṣatriya warriors were extolled and their deeds immortalised. Sūta, the oral author of the Great Epic, and his caste hailed from this region.[1] We cannot pass over an important phase of Indian

1. Suta—a bard—an inhabitant of Anupa (Bengal), and Māgadha—an inhabitant of Magadha—were persons whose duty it was to maintain the tradition of gods, Ṛṣis and glorious kings. (*Pargiter:* A. I. H. T.)

political history in this connection It seems to us more than a coincidence that all the earlier Empires in India should arise in the east It speaks of an essential difference in tradition and temperament This view is adequately supported by the fact that Buddhism and Jainism–the two great revolts against "priestly ism "–are eastern by origin Besides this different outlook and culture, the mixture of races that inevitably took place to a considerable extent in the east was another potent factor affecting the linguistic evolution "This factor of race mixture, says *Prof Keith*, 'must have played an important part in the creation of the Prakrts not of course in the sense that these represent the treatment of the Vedic by the aborigines on whom it was forced by their masters but as influencing the racial character and the speech capacity and habits of the Aryan Tribes '[1] The earliest result of this process in the east can be recognised in Pāli Historical evidence will strongly support the view that Pāli is an eastern dialect (We do not refer to the written Pali of the Buddhist Canons) The eastern kings encouraged and patronised the claim of Pāli and kindred dialects to literary distinction The official language of the greatest eastern religion *viz* Buddhism, is Pāli The language of the Asokan Inscriptions is more or less a dialect akin to Pali Thus whilst *in the Middle Country the ancient Vedic* dialect was trimmed and forged under the Priestly regime into what is known in its later form as Classical Sanskrit, the same Vedic dialects developed in the east under different circumstances, into Pali or a dialect akin to it, and later under the patronage of the grandson of the Sūdra adventurer Chandragupta Maurya made its way into literature Different in origin, Classical Sanskrit and literary Pali flourished side by side The one traces the social outlook of the Priest class, the other narrates the social history of the Ksatriyas one worships God through the Brahmin, the other glorifies God through the King.

1 Classical Sanskrit Literature p 10 cf also Wilson Philological Lectures, p 87

one is oligarchic and the other a democratic literature. Clas: cal Sanskrit is pedantic while Pāli is popular.[1] This state simultaneous development continued upto the dawn of our er

14. Renaissance: The Neo-Sanskrit

The closing years of the 4th Century B. C. witnesse the rise of a great Empire in the east. Chandragupta, an a venturer of the Mora tribes and the founder of the Maury Empire, though assisted by a great Brāhmin, Viṣṇuśarman Kauṭalya, was by no means a favoured child of the orthod Hindus.[2] Forty years later his grandson, the Great Asok openly sympathised with Buddhism and undertook missionar work on its behalf. Like all other preachers and followe of Buddhism, Asoka adopted the dialect of the people as th medium of his royal edicts. There are, however, differenc in phonetics and morphology between Pāli and the languag of the Asokan Inscriptions. This was inevitable as the Inscrip tional style utilised the various actually spoken dialects the different Provinces while Pāli had already attained literar distinction. It would not be unreasonable to suppose that th Asokan language forms a natural link between the Pāli an the Prākṛt stages. The different versions of the edicts, i they do differ among themselves, differ only on the phoneti side; the morphology is practically the same. It should b

1. Cf. "There must have been two great streams of Tradition Kṣatriya Tradition and Brahmanic Tradition...The very fact that Vedic literature deals almost exclusively with Brahmanic thought and action implies there must have been a body of another Tradition dealing with the Kṣatriyas and the great part they played during the conquest and the political life that was the outcome of it."
(*Pargiter*. Ancient Indian Historical Tradition. p. 6).

2. In the discussion following the term "Hindu" is used;not in the modern sense but as denoting only the votaries of sacrifice and other Vedic rites as opposed to Buddhists or Jains. It is by no means an accurate term. An anachronism at this stage, the term "Hindu" is employed only for the sake of convenience. —Author.

noted, however, that for the first time in history, a large part of India came under the sway of one paramount power; from now on therefore, a process of mutual influence and borrowing starts on a larger scale and has continued ever since

But the spread of Buddhism could not be either unprovocative or unchallenged[1] The Hindus, long complacent in their dogmatic superiority, woke up at last from their ritualistic stupor It is true that Vedic writings were criticised by the Upanisads even before the time of Prince Gotama, but Buddhism had gone dangerously further in successfully bringing the Vedic doctrines into contempt and ridicule So the Hindus, *i e.* the followers of the Vedic rites, determined to rise, and rise *with one voice* They saw, to their discredit, that preaching had never been in their line and this drawback, for the time being, they set to correct The campaign in this revival of Vedic doctrines (that ultimately assumed the form now known under the term "Hinduism) opened, as was natural, not with any philosophic expositions but with popular story books In ancient ballads and hero songs a nucleus was found on which the new edifice was to be built. The two epics are the best illustrations of this manœuvre Mahābhārata, for example, may be said to be the Encyclopædia of this Renaissance In a work pretending to narrate in popular style the history of the Bharata (*i e* Kuru not Pāndava) tribes and princes every legend current, every school of philosophy and every rite of the Vedic school was exposed, explained and defended, *as if casually!* The new religious fervour thus created helped, in its turn to revive the study of the literary dialect of the Madhya Deśa as all the religious, doctrinaire and philosophical works of this school were written in that dialect How far this attempt to revive *Sanskrit succeeded,*

1 Cf *e g* the view that the S unga dynasty whi... succeeded the Maurya dynasty was a ... H ... Buddhism by Pus yamitra the ... Maurya King

can be judged from the fact that for the first time in its career Sanskrit was employed for secular purposes in the Inscriptions of the first Century A. D.

But unlike Pāli and other dialects, Sanskrit could not descend right to the masses. Confined as it was, for a long time, to literary purposes and doctrinaire literature, its scope was limited and its form fixed. It had an insular development and a " next-worldly " outlook.

15. "Prakrit" and "Prakritisms"

But there were some essential factors to show that the revival of Sanskrit had not only to be artificial but un-enduring. The spoken dialects by this time were not only many but *each had a long and individual development.* The difference between a literary language and a spoken dialect consists in that the latter is more liable to changes both phonetic and morphological. Though the spoken form of a dialect is precluded by its very nature from being employed for literary purposes, it is a commonplace that " colloquisms " are not only usual but inevitable in literature. The revival of Sanskrit, it must be admitted, created a wider gulf between the spoken and the written medium. But by the 6th Century A. D. changes in the former (*i. e.* spoken) dialect seem to have been so assimilated, so consolidated, so accepted and recognised as to be introduced into the literary domain. It would be surprising if Sanskrit were not to be influenced by the spoken dialects; and that influence can be clearly detected in what are commonly called as the " Prākritisms. " Prākṛt, it is true, has no vast literature to be compared with that in Sanskrit. But this lack of literature is due to the artificial and deliberate revival of Sanskrit—*the vehicle of sacred thoughts.* That with the march of the times and the advance of the society Sanskrit found itself out of time and out of tune became evident as soon as the patronising protection of the Gupta Kings (4th and 5th Century A. D.) vanished; and that

Sanskrit was deficient in expressing new turns and new ideas could be seen from the *Prakritisms* therein Incidentally an analytic study of all the *Prakritisms* in this *Neo Sanskrit* would be of great interest Now on Sanskrit was more a fashion than a force

As to the dialects, by the 6th Century A. D the promises of the different versions of the Asokan Inscriptions were fulfilled. There were now specific dialects, recognised under different names as different Prākrts. Why were they called Prākrts? The word *Prakrt* means ' Primary or Basic . It would be reasonable to hold that at the time these dialects were recognised as Prākrts they had already a literary tradition. We refer to a language as an actuality only in relation to its literary aspect, In this case one would be justified to go further and assert that when the Apabhraṁśa forms of dialects were in colloquial vogue those employed in literature which must, of a necessity, sound a little more archaic, were designated as Prākrts that is to say, the literary form was rightly or (what is more likely) wrongly supposed to be the " primary or " basic (*prākrt* from *prakrti*, origin nature) form of the spoken dialects This view gains in strength from the fact that the few samples of the various Prākrts obtaining in Sanskrit plays etc, are types of fixed or literary dialects[1] A colloquial dialect needs decades to get into literature and when at last it does get in it is only to find out that it has long ceased to be colloquial. That is the history of the Prākrts which have a probable development of about seven centuries, *viz* from the first century B C. to the sixth century A D It is about the sixth century A. D that we have the first grammar of the Prakrts *It may be safely laid down as a guiding principle that a codified grammar is the first signal of the decay of a dialect*

1 Cf *Beames* Comparative Grammar of ' guages of India, Vol I, p. 22.

16. The Prakrits

Before coming to the discussion of the Apabhrams'as we might better record in brief the various Prākṛts. Taking into consideration only the literary Prākṛts we have six of them; *viz*. Mahārāṣṭrī (M.), S'auraseni (S.'), Māgadhi (Mgd.), Ardha-Māgadhi (A. M.), Jain Mahārāṣṭrī (J. M.) and Jain S'auraseni (J. S'.). Of these the first three might be termed "*dramatic*" *Prākṛts* to distinguish them from the other three which, as they have been mainly employed by the Jains in their canonical literature, may be called the *Canon Prākṛts*.

Of the six M. is the Prākṛt *par excellence*. The Prākṛt grammarians treat elaborately only this Prākṛt, dismissing the others, after noting a few peculiarities, with the remark शेषं महाराष्ट्रीवत् *i. e.* "otherwise everything the same as in Mahārāṣṭrī." In an oft-quoted line the rhetorician Daṇḍin speaks of M. as

महाराष्ट्राश्रयां भाषां प्रकृष्टं प्राकृतं विदुः ।

In the dramatic literature ladies speaking S'auraseni sing in Mahārāṣṭrī. M. is essentially a lyrical dialect. Prākṛt epics like Gauḍavaho are written in this dialect. S'., on the other hand, is the Prākṛt of the Madhya Des'a. It is nearest to classical Sanskrit. Hence, in dramatic literature, we find it employed by cultured but illiterate characters: *e. g.* the ladies of the upper class or the Brahmin fool. In one instance only, in the *Karpura-manjarī*, even the king speaks in S'. As opposed to both M. and S'., Māgadhi is a dialect employed by the low-caste people. It is distinctly a Prākṛt of the east.

In contrast to the above stand the Jain Prākṛts. The dialect in which the oldest Jain Sūtras were composed is known as Ardha-Māgadhi. It is based on the dialect spoken between S'aurasena and Magadha (about Oudh). It is more independent of Sanskrit and has more traces of older grammar. Like the Hindus the Jains too do not seem to use the colloquial dialect for religious works; because the dialect of their non-canonical literature is different. It is known as the Jain Mahārāṣṭrī and is used by the Jains of the S'vetāmbara school.

The Digambaras had their own dialect. As it resembles S'auraseni in some respects it has been conveniently termed as Jain S'auraseni.[1]

Like the dialects of the Asokan Inscriptions these various Prākrts, though much later in age, differ from the Vedic more on the phonetic than on the morphological or syntactical side. The phonetic changes in these dialects show that they were [illegible] life; this conclusion is amply [illegible] gical and syntactical variations, [illegible] r place.

17. Conditions Changed

The next convenient period is the Apabhrams'a stage. oughly speaking it extends (in round figures) from 600 . D. to 1000 A. D. One broad feature of this period is the istinct development of the various dialects into the forms of e modern Indo-Aryan Vernaculars. The question of the [illegible] cussed in another [illegible] digression in re- [illegible] India during this eriod. It is not only interesting but from our point of view oth essential and illuminating.

On the decline of the Gupta Empire in the 5th Century . D, there arose no one, single sovereign to rule over the hole of India True, Harṣa, in the middle of the 7th Century . D., built up an Empire. But Harṣa's domination was conned only to the northern part of the country. Unlike Asoka, Iarṣa had been successfully challenged by a southern rival-ulakes'in II. The Empire of Harṣa was more a personal an a national or institutional concern. It lived and died with s founder. As a matter of fact it was impossible, in the very ature of things, that Harṣa's dynasty would inherit an Empire. In imitation of the Grand Asoka, King Sri Harṣa ttempted to popularise Buddhism by patronising

1. For the above summary I am mainly indebted [illegible] rakrit Hand-book.—Author.

he only showed that he was a good Buddhist but a bad statesman. Buddhism was a lost cause in India. Hinduism had strongly re-asserted itself. Neither power nor fortune of an Empire could now be staked on Buddhism.

Harṣa's Empire could not survive; other Empires would not arise. Owing to this fact *viz*. the absence of one paramount power, there was no more any one dialect—as, for example, the Māgadhi in the days of Asoka—that could influence, permeate and predominate. Even the once popular and powerful Mahārāṣṭri and S'auraseni became negligible in this respect owing to the successful artificial revival of Sanskrit. The result was inevitable. Under various petty kings the various dialects flourished independently. One outcome of this process is rather important. People appear to have begun to write in the language of every-day life. If, on the other hand, the colloquial language had not been committed to writing, the term *Apabhrams'a* would most probably not ha arisen at all. On no other ground could that term be mo satisfactorily explained. *Though language had to change, h changed, and had been changing, these changes do not seem have been noticed* (except by a few grammarians). *It w only when two literary compositions—one in Prākṛt and the oth in the then current dialect—were placed side by side that t extent of the changes was made visible.* The older, the origin was the Prākṛt or the basic and the changed one was *Ap bhrams'a i.e. corruption.* Why should the modified form be ur derstood as corrupted? It is rather curious; but only an appe to human psychology and Hindu religion might answer suc mental process "to commend the past and deprecate th present." Whatever that be, for the first time in Indian histor "provincialism" appears as a positive force during this period

Thus ends the story. The period under review witnesse the culmination of the Aryan consolidation of India. Som 2500 years ago the Vedic tribes invaded India. They were virile race. They carried everything before them. The aborig

l inhabitants of India they mostly scattered up the mounins, down the valleys, to the furthermost corners of the subntinent They came, conquered and colonised They deveped great religions, deep schools of philosophy, vast and owerful empires and a great literature No foreigner could sturb them with success or impunity But now! It is an old, d story in India The invaders conquer the soil but only to e conquered themselves by that soil The Aryans in the old ndia spread and scattered The more they spread, the more ey scattered the more they scattered, the more they were lienated After 2000 years we find them graded (or degraded) into classes, segregated into sects and combined into petty ingdoms We have no desire, much less any authority, to trespass on the domain of the historian, but these circumstances, we would conclude, changed the course of linguistic devebopment. The various dialects were now established firm and ndependent, the mutual differences became far greater than at any other period Pāli the Asokan dialects and the various Prākrts differed among themselves mostly in phonetic respects But from the Apabhramsa period mutual variance extended to morphology and syntax as well It is a matter of every-day experience that a Marathi speaking man cannot understand his Bengali brother, nor can a Bengali follow a Sindhi speaker [1] There were, in this period, fresh factors to accelerate such a process As the period opens foreign conquerors are knocking at the gates of India, impatient to disturb the peace of the long-settled Aryans and to impose their rule, religion and language.[2]

1 Contrast in this connexion the case of Skt plays where not only Skt and Pkt were freely employed but different Pkts were used by different characters If these plays were staged, which must have been a probability, we have to presume not that there was an audience of polyglots but that the various dialects were still so close as to be understood by an average citizen

2 Sindhi is an apt illustration in this respect It uses the Arabic scripts and abounds in Persian words, itself being an Indo-Aryan dialect

18. Scope of Comparative Grammar

But in spite of all the different influences they have undergone, in spite of the long duration of their separate existence in spite of the difference in the scope, the extent, the nature and even the genius of their literature, it will not be hard to see that these dialects are closely related; that, as a matter of fact, their ultimate source is one and the same. For, however vast a literature a language may develop, its essence, its soul, its *raison d'etre* does not consist in written words. Write a thought, it is dead; write a language, it is dead. The living language is the spoken language, the language of every-day life, the language that serves the bare, ordinary essentials of man. It is such a language that forms "the continuity of man with man in space and time, the intellectual money of Society." Literature is not so important to a writer of Comparative Grammar. He may cite it in support of his conclusions. Literature is a book of reference to him while the spoken language is his original material.

Comparative Grammar would be valuable even if it could only solve the puzzle of linguistic development. But its scope is not really so limited. It complements and supplements other Sciences. It helps us to reconstruct the past and to fill in many a gap in history. The path of the adventures of the Early Man, his habits and his thoughts, his place in and his relation to Nature–such and such-like problems are to be solved before an accurate history of the past could be made source of inspiration for the future. Architecture, Archæology Anthropology, Numismatics or Sculpture–these are some of the contributory Sciences in this problem; and likewise Comparative Grammar too has a claim to stand shoulder to shoulder with other honest labourers in the field.

PART II. GROWTH OF LANGUAGE

(A) Internal or Structural Study

19 How Sounds Are Produced

In the foregoing sections we made an attempt to follow ie course of language along historical lines. From this ex-ernal aspect of linguistic development, we shall now turn to ie internal or structural From this point of view Language nay be defined as a system of articulate sounds or, to be more ccurate, a system of groups of articulate sounds "In the roduction of these articulate sounds," says *Dr. Giles*, " the hief factors are the larynx, the cavities of the mouth and the [illegible] l palate. The larynx is a [illegible] the wind pipe. The upper [illegible] k of the mouth Across the middle of this box two folds of mucuous membrane stretch owards the centre line from the sides, to which they are at-ached. In the centre a slit is left between them. The folds of nembrane are the vocal chords, the slit which is left between hem is the *glottis*. When these chords are tightened by the ction of the muscles, they project farther towards the centre ine than at other times, and in this tense condition voice is roduced by the air flowing across their edges, which have een brought parallel to each other, and thus causing them to ibrate "[1]

Sounds of different variety, length, depth etc are the results of these vibrations But the primary classification of hese sounds is into consonants and vowels, *i e* into those in he production of which the passage of the air is obstructed nd those where it is not. A vowel has been defined as " a oiced sound accompanied by a free passage of air th

1 A Short Manual of Comparative Philology p. 67

the mouth, and not producing audible friction." (English Phonetics by *Daniel Jones*).[1] In the case of consonants the friction is audible. There are, however, certain sounds in the production of which occlusion (*i. e.* friction) is so slight that these sounds could be described neither as consonants nor as vowels. They are semi-stops (stop = consonant), so to say, and are usually termed semi-vowels. This fact, by the way, shows, as *Prof. Vendryes* says, that the difference between vowels and consonants is a difference that becomes apparent only in the extremes.

20. The Occlusives or Stops

Occlusion or obstruction to the passage of air is effecte with the aid of the lips, the tongue or the teeth etc. When tl current of breath is obstructed by bringing into action the lip the resulting sounds—like *p*, *b*, etc.-would be labials. Whe the teeth take a prominent part in the occlusion dentals a produced. The Sanskrit sounds *t*, *d*, etc. are examples of th dentals. It would be easy to notice a certain difference be ween the labial and the dental occlusion. The former take place in one and only one position, that is to say, no occlusio by the lips is possible except by closing them together; whil in the case of the dental occlusion the point of contact of th tip of the tongue and the teeth can, and does, shift to mor than one place. This fact explains why labial sounds like *p*, *b* etc. are the same in almost all the languages. As to the dente stops there is a variety. If the tongue touches the teeth in-bet ween them dental sounds like Sanskrit or French *t*, *d*, result if the tongue is bent down the hollow of the teeth (which i called the alveole), sounds like that of *t* in English word like "*the* or *that*" or of *th* in words like "*thin*, *thick*" etc. ar produced; and when the tip of the tongue is pressed back wards against the upper part of the teeth, Sanskrit sounds like ṭ, ḍ etc. are produced. These latter are called cerebrals.

1. Quoted by Dr. Sidheswar Varma. p. 58.

Likewise is there a possibility of variety with the velar or guttural sounds. If the occlusion occurs a little further back o the mouth gutturals proper i. e. sounds like Sanskrit *k*, *g*, are produced, when however, the occlusion takes place the front part the resulting sounds would be those like Skt. or *s* These latter are called palatals It is necessary to int out here that besides those noted above there is nothing preclude the existence of numerous intermediary places of ntact or occlusion Those mentioned are the ones with hich we are immediately concerned

We have noted above that the vocal chords vibrate in the oduction of these sounds. Different sounds may be proiced as this vibration is slack or tense When the vibration slack sounds like *k t p* etc. are produced These are rmed *breathed* or *unvoiced* stops When the vibration is nse the vocal chords are brought quite close to each other, oducing sounds like *g*, *d*, *b* etc These, in contrast, are the *iced* stops Ancient Indian grammarians have already iticed this difference They distinguished them as hard (un iced) or soft (voiced) With [illegible]

21 Duratives

Let us consider a case where the occlusion is *neither* close or jerky For no moment would the passage of air, in such case, be completely stopped. There is throughout a slight ening for the passage of air In such circumstances the unds produced could more aptly be described as *duratives* an stops, they have been also termed as *fricatives*, *spirants* c. There is neither complete *implosion* (i. e stopping of eath) nor sudden *explosion* (i e letting out of breath).

the mouth, and not producing audible friction." (English Phonetics by *Daniel Jones*).[1] In the case of consonants the friction is audible. There are, however, certain sounds in the production of which occlusion (*i. e.* friction) is so slight that these sounds could be described neither as consonants nor as vowels. They are semi-stops (stop = consonant), so to say, and are usually termed semi-vowels. This fact, by the way, shows, as *Prof. Vendryes* says, that the difference between vowels and consonants is a difference that becomes apparent only in the extremes.

20. The Occlusives or Stops

Occlusion or obstruction to the passage of air is effected with the aid of the lips, the tongue or the teeth etc. When the current of breath is obstructed by bringing into action the lips, the resulting sounds—like *p*, *b*, etc.-would be labials. When the teeth take a prominent part in the occlusion dentals are produced. The Sanskrit sounds *t*, *d*, etc. are examples of the dentals. It would be easy to notice a certain difference between the labial and the dental occlusion. The former takes place in one and only one position, that is to say, no occlusion by the lips is possible except by closing them together; while in the case of the dental occlusion the point of contact of the tip of the tongue and the teeth can, and does, shift to more than one place. This fact explains why labial sounds like *p*, *b*, etc. are the same in almost all the languages. As to the dental stops there is a variety. If the tongue touches the teeth in-between them dental sounds like Sanskrit or French *t*, *d*, result; if the tongue is bent down the hollow of the teeth (which is called the alveole), sounds like that of *t* in English words like "*the* or *that*" or of *th* in words like "*thin*, *thick*" etc. are produced; and when the tip of the tongue is pressed backwards against the upper part of the teeth, Sanskrit sounds like ṭ, ḍ etc. are produced. These latter are called cerebrals.

1. Quoted by Dr. Sidheswar Varma. p. 58.

Likewise is there a possibility of variety with the velar or the guttural sounds. If the occlusion occurs a little further back into the mouth gutturals proper i. e. sounds like Sanskrit *k* [illegible] etc. are produced when, however, the occlusion takes place in the front part the resulting sounds would be those like S[illegible] *c* or *s*. These latter are called palatals. It is necessary [illegible] point out here that besides those noted above there is [illegible] to preclude the existence of numerous intermediary [illegible] contact or occlusion. Those mentioned are the [illegible] which we are immediately concerned.

We have noted above that the vocal chord [illegible] production of these sounds. Different sounds [illegible] duced as this vibration is slack or tense [illegible] is slack, sounds like *k t p* etc. are produced [illegible] termed *breathed* or *unvoiced* stops. When [illegible] tense the vocal chords are brought quite [illegible] producing sounds like *g, d, b* etc. These [illegible] *voiced* stops. Ancient Indian grammarians [illegible] noticed this difference. They [illegible] voiced) or soft (voiced). When [illegible] example in Sanskrit, there is [illegible] gust of breath in producing [illegible] we now recognise in these [illegible] Corresponding to the stops [illegible] *th ph* etc. or voiced like [illegible]

2. [illegible]

Let us consider a [illegible] upto nor jerky. For [illegible] troduced, a case be completely [illegible] ensured and opening for the passage [illegible] le) sounds produced [illegible] than stops they are [illegible] etc. There is [illegible] breath) [illegible]

Besides, the semi-occlusion could take place in any position, by means of the lips, the teeth, the tongue etc. As a result, for every stop, voiced or unvoiced, aspirate or un-aspirated, velar or palatal or labial or dental etc., we have a corresponding spirant. Thus, the English *f* is dento-labial, *s* dental, Sanskrit *s'* and *ṣ* palatal and cerebral respectively, *ch* (*x*) in the German word *Buch* velar and so on.

Occlusion in the case of spirants is weaker than in the stops mentioned above; in the production of certain sounds, however, it is still weaker. Such are the sounds *y* and *w*, for example. These are the semi-vowels referred to above. Of course, one would be justified to term them "semi-consonants" as well. We shall see later on how easily *y* and *w* merge into vowels, especially as the second element in diphthongs.

With vowels there is no occlusion at all. They are classified as velar, labial or palatal according as the current of breath is forced out from the back of the mouth, through the lips, or from against the roof or palate.

It has been presumed so far that in the production of all the sounds described above, the nasal passage would remain closed. But when a certain portion of the air is let out through the nose, nasals are produced. The nasal passage could be kept open during the production of any sound. There could be nasal vowels as well as nasal stops of each and every variety mentioned above.

22. Length

Besides that of voice, occlusion and nasality, both vowels and consonants admit of a difference of length. Roughly speaking any sound is considered long if, in producing it, comparatively more time s required than usual. So vowels and consonants can be distinguished as short or long. Vowels like *ā*, *ī*, or *ū* are long corresponding to short vowels *a*, *i*, *u* etc. Similarly a double consonant would be the corresponding long form of a single consonant. It would be observed that com-

paratively more effort (*i. e.* time) is required to pronounce *kk* than *k*. The condition of duplication is essential as it excludes consonantal groups like *kt*, *tp* etc. which could not be a long form of any corresponding short consonant. *kt* and *kk* are different. In *kt*, for example, the point of occlusion is not one, it is shifted from one to another place, that is to say, the "locality" of implosion (as *k* is the implosive sound in the group *kt*) and the "locality" of the explosion (as *t* is the sound exploded) are different. But in pronouncing *kk*, on the other hand, the occlusion is retained in the same place as, but for a longer time than, that of single *k*. This distinction in the length was recognised as early as the vedic dialects.

23 Groups of Sounds or *Phonemes*

Language consists not of mere sounds but of groups of sounds or of what are called the *phonemes*. "A phoneme is a group of sounds which are related in character and are such that no one of them ever occurs in the same position as any other in connected speech in a particular language."[1] And further a language, as *Prof. Vendryes* remarks, is constituted not by isolated phonemes but by a system of phonemes. It seems, therefore, more than justifiable to assert that for our purpose not only an analytical but a synthetical study of sounds is essential.

The Syllable

The syllable is the earliest recognised group of sounds. There is evidence in the oldest literature which goes to prove that syllable is earlier than word. As a matter of fact, upto the time the art of writing was first known or introduced, syllable was the only unit in which sounds were measured and grouped (Note the Skt. word "mātrā, measure for a syllable). The different metres of the Vedic hymns depend for their cadence, length etc. not on a number of letters (or words, as is usual in later poetry) but entirely on the number of syllables

1 Bulletin of the School of Oriental Studies.

Though the syllable has thus been recognised from the earliest times, our conception of a syllable differs considerably from that of our ancestors. The difference, essential as it is, may better be brought out by a concrete illustration. A sound-group like *AKA*, *e. g.*, consists, according to both the old and the modern conceptions, of two syllables. But in explaining where the first syllable ends and the second begins the ancient and the modern grammarians part ways. According to the former *A*–is the first and –*KA* the second syllable. But now we know that the pronunciation of a stop like *K* consists of two distinctly discernible stages–that of implosion when the breath is held in and that of explosion when the breath is let out. This conception of an implosive and an explosive *K* sound leads to the conclusion that both these sounds cannot form one and the same syllable. The better and more reasonable explanation would be that the sound-group *AKA* consists of two syllables *viz.* AK^1–and–K^2A where K^1 represents the implosion and K^2 the explosion of the sound *K*. We would then be in a position to say that an implosion ends one and an explosion begins another syllable. From this point of view *Prof. Meillet* defines syllable as " la tranche comprise entre deux termes extrêmes des movements d'ouverture et de fermeture. " (p. 97).

24. Word or Phrase

It was maintained at the very opening of this work that Language was nothing if it did not convey impressions. A particular image is formed in the brain which is expressed or made visible by a " verbal image " so to say. A verbal image is an external counterpart of an internal impression. The latter might be said to be conveyed, communicated, translated or expressed through the former. The form, however, under which the verbal image is expressed, perceived and understood, is the sound-groups known as words or phrases.

Unlike the syllable, a word, though a group of syllables, cannot be phonetically defined. Of a syllable it could be said that implosion ended one and explosion commenced another syllable. It cannot likewise be laid down where a word begins or where a word ends. There are, however, certain features which mark the end of a word. For example, a sound at the final of a word undergoes a peculiar phonetic treatment; it develops in a different way than the same sound in the body of a word. It is easy to see the reason. The final part is usually the weakest part of the word. In Sanskrit, for example (as will be shown later), a stop at the end has not the same pronunciation (or articulation) that it has in between the body of a word. The old grammarians tell us that the final ones, in such cases, are पीडित i. e. "unexploded". Besides, in dialects like the Vedic and the Greek, the final of a word carries the *caesura*. In Sanskrit again the Samdhi rules affect the final of a word. Nevertheless a word can only be defined with precision in its morphological limitations, phonetically, besides carrying an accent, a word has no limitations.

25. "Morphemes" and "Semantemes"

Such a word or phrase plays a dual role. On the one hand it represents an idea and on the other, it indicates the relation between various ideas. Thus in an example like राम पानीयं पिबति (*Rāmah pānīyam pibati*) the words राम, पानीयम and पिबति represent, firstly, the different ideas of "a particular person, water, and drinking" respectively, and secondly, by the very (grammatical) form are indicated the relations of the three words with each other. These two different roles of a word are known as *semasiological* and *morphological*, and their study as *Semantics* and *Morphology* respectively. Semantics *deals* with words when they express an idea and Morphology *when* they indicate the relation between those different *ideas*. Words expressing the relation between [illegible] are known as "Morphemes" and words when [illegible] ideas are "Semantemes".

(B) Indo-European Phonology

26. Phonetics

Now that we have gone over, however briefly, the general principles of phonetics, it would be possible to give an outline of the phonology of the primitive I. E. dialect. A knowledge of the latter is quite essential for a detailed study of the Indo-Aryan languages. It is as important as the background of geographical knowledge for a study of history.

It has been mentioned above that the primitive I. E. dialect was only hypothetical. We know no more about its origin or structure than what could be reconstructed by a comparative study of the earliest known dialects of this branch.

These dialects are the eight mentioned above. It is not to be expected that any single one of them could claim, to the exclusion of the others, to represent the primitive dialect with more honesty or in greater details.[1]

27. Consonants

The I. E. had a series of labials and a series of dentals and these sounds—with a few exceptions—have been faithfully represented by the various dialects as the following examples will show:

I. E. **p*.

Skt. *pa'tih* (पतिः), Gk. *Po'tis*; Lat. *Potis*; Lith. *pat(i)s*.

Skt. *api* (अपि); Aves. *aipi*; Gk. *e'pi*.

I. E. **b*.

Skt. *pibāmi* (पिबामि): Lat. *bibo*: O. Ir. *ibim*.

I. E. **bh*.

Skt. *bharāmi* (भरामि); Aves. *barāmi*; Arm. *berem*; Gk. *fēro*; Lat. *fero*.

1. In the following pages sounds, forms or words which are not known to have existed *i. e.* which are only hypothetical, are marked with an asterisk.

I E. *t

Skt *trayah* (त्रय) Gk *tres* Lat *tres*

I E *d

Skt *da mah* (दम) Gk. *domos* Lat. *domus* Slav *domu*

Skt *padam* (पादम) Gk. *poda* Lat *pedem*

I E. *dh

Skt *dhūmah* (धूम) Gk *thumós* Lat *fumus* O Slav *dymu*.

Skt *rudhira* (रुधिर) Gk *e ruthros* Lat. *ruber* etc

It might be mentioned in this connection that no I E dialect distinguishes any unvoiced aspirate from the corresponding unvoiced un aspirate i e corresponding to *p t* etc there are no *ph th* etc Sanskrit is the only exception in this respect but even Sanskrit does not represent these unvoiced aspirates with any frequency *ph th* etc are not as common in Sanskrit as *bh dh* etc In Avestic as in Greek there are spirants *f p x* equivalent to Sanskrit *ph th kh* e g

Skt kakhati (कखति) to laugh Aves xaxan

Skt phūtkara (फूत्कार) Gk. fusa etc

The Velars

Unlike the labials and the dentals, the I E. velars have not been represented with any uniformity As a matter of fact two distinct developments could be detected in the case of I E. velars *Kw *Gw etc In one group there is the w sound present with the result that Latin for example has *qu* for *Kw In the other group I E *kw *gw etc. have become simple gutturals. In Sanskrit itself there is a two fold development of such simple gutturals The Sanskrit treatment of *kw *gw etc depends on the following vowel These I E. velars are represented in Sanskrit by gutturals except before original palatal vowels where they become palatal sounds *c j* etc.

Examples

Skt *rekah* (रेक), Gk *loipos* Skt *rina'* ' ˆ ' *linquo* but Gk. *leloipe* Skt *rireca* (रिरेच) ˜ (अरिचन) Lat *quid* Gk *ti* but Skt. *cid*

These Sanskrit palatal sounds should not, however, be confused with the original series of palatals in the I. E. These latter (denoted as *k^1, *g^1 etc.) become in Sanskrit corresponding palatal sibilants. Thus I. E. *k^1>Skt. *s'*, I. E. *g^1>Skt. *z'*, I. E. *g^1h>Skt. *z^1h etc.

Examples

Gk. *klutos'*, Lat. (in-)-*clitus*, but Skt. *s'rutaḥ* (श्रुत:).

Gk. *kunó-s*, but Skt. *s'una-ḥ* (शुन:) etc.

28. Sibilants

If the I. E. is rich in stops or consonants as described above, it is extremely poor in continuants or fricatives. As a matter of fact there is only one such phoneme, the sibilant *S*. Its treatment, however, in the various dialects is complicated enough; it varies according to the position of *S* itself or according to the preceding and following sounds.

1. Initially I. E. *s is preserved except in the Iranian, Armenian, Greek and Brittanic dialects where it becomes *h*. *e. g.*

Skt. *sanaḥ* (सन:) "old", Lith. *sēnas*, Lat. *senex*, Goth. *sinista* ('oldest'), but Arm. *hin* etc.

2. In certain positions it is preserved in all languages, especially between original *e* and *t*. *e. g.*

Skt. *vaste*, (वस्ते), "he dresses himself," Aves. *vastē*, Gk. *festai*, Lat. *uestis*.

3. In other positions I. E. *s has undergone different changes. It is interesting to note in this connection that these changes spread over a contiguous area eastwards. Thus after *k* in Sanskrit (Indo-Iranian), Slavonic and Armenian; after *k*, *i* and *u* in Sanskrit (Indo-Iranian) and Slavonic; and after *k*, *r*, *i* and *u* in Sanskrit (Indo-Iranian) alone, original *s becomes *š*, and this latter again changes to *ṣ* in Sanskrit. *e. g.*

Skt. *vakṣyām* वक्ष्यामि) "I shall speak", Aves. *vaxšya*.

Skt. *tṛṣyati* (तृष्यति) "he is thirsty", Lith. *tirš-tas* etc.

(4) In front of voiced sounds *s becomes voiced i e *z. This *z, in its turn, becomes *ž under the same circumstances as *s becomes *š In Sanskrit this *z changes to *z, but is lost at the end of a word and also in the middle of a word in front of a voiced stop But though lost, it leaves its trace on the preceding vowel[1]

29 Cerebrals

So far not a word has been said about the cerebrals and this for the simple reason that Indo-European dialects show no traces of any original cerebrals Even at the present time, in the entire I E. family, the existence of the cerebrals is a distinctive characteristic of only the Indo Aryan languages Though the modern Norwegian has a *t* sound it is found only after a *r* sound In no other I E. language is there any real or independent cerebral. It is not found freely in Sanskrit itself where cerebrals mostly occur in certain positions as *e g*, after *s* etc

An Explanation (?)

We have seen above how the I E. *s became *s* in Sanskrit In the light of this fact cerebrals in the Sanskrit have been explained as follows

' The change of *s* (and *z*) to *sh*–sounds (*i e* ṣ ž) after the sonants *i u r* and the consonant *k* goes back probably to a dialectical variation within the I E. itself and certainly to the period of the Indo Iranian community

1 The following example will make the point clear Take the Skt root *Sad* (सद्)-to be seated The weak stem of this root should be **Sasd*-on the analogy of *papt* (पप्त्)-from the root *pat* (पत्) ' to fall (as in the Vedic perfect) As a matter of fact we have not **Sasd*-, but **sed* The explanation is this The I E form would be **Sesd*- **S* infront of *-*d* would change to Indo-Iranian form would be **Sezd*- In Sanskrit the *z but not before it has lengthened the previous us the Skt weak stem *Sed*-

" In Sanskrit, between vowels, these sounds appearing as *ṣ* were distinguished from the descendants of the I. E. palatal stops—*s' j h*—but before stops both developed in the same way *viz.* as *ṣ* (and **ẓ*). An I. E. dental immediately following these sounds became in Sanskrit a corresponding cerebral *viz.* *ṭ ṭh ḍ* or *ḍh* (ट ठ ड ढ). Of the groups thus formed *ṣṭ* and *ṣṭh* remained in Sanskrit while **ẓḍ* and **ẓḍh* became *ḍ* and *ḍh* with the lengthening of a preceding short vowel other than *ṛ*.

" Further *n*, if preceded in the same word (or word-group) by *ṣ* or *r*, whether immediately or at a distance, provided no sound involving articulation with tongue-tip intervened, became *ṇ*.

" Lastly, *ṣ* (and **ẓ*) preceding stops other than dentals, preceding *s* and probably finally became *ṭ* (and *ḍ*)."[1]

Thus could be accounted for the Sanskrit *ṭ ṭh ḍ ḍh* and *ṇ* (ट ठ ड ढ ण). The fact that in Sanskrit initial cerebrals are few and far between lends a further support to the above suggested origin (or explanation) of those cerebrals.

30. **Sonants** *y v r l m* and *n*

The I. E. is as rich in sonants as it is complicated in their treatment. But, for our purpose, a summary of *Prof. Meillet's*[1] lucid discussion would be sufficient.

On the whole four different treatments of the I. E. sonants could be discerned according to the position they occupy in the body of a word ; in any case, they are either vowels or consonants.

(1) As *consonants* they stand

(*a*) at the initial of a word before a vowel or another consonant, *e. g.*

Skt. *yakṛt* (यकृत्), Lat. *iccur*, Aves. *yākarə*;
Skt. *vīraḥ* (वीरः), Aves. *vīrō*, Lat. *uir*, etc.;

1. *Prof. R. L. Turner*. J. R. A. S. 1924. pp. 555 ff.
2. *Introduction a letude comparatives des langues Indo-Europeennes*. pp. 76–96.

(*b*) between two vowels e g
Skt. *nāman* (नामन्), Lat. *nōmen*, Gk *enoma*, etc
or (*c*) between a consonant proper and a vowel, e g
Skt plavate (प्लवते), O Slav plovetˇ
Skt. madhya (मध्य), Lat. medius etc.

(2) Between a vowel and a consonant (proper or sonant) the sonants serve as *the second element of a diphthong*, e. g

Gk *eisi*, Skt *eti* (एति), Aves *aēiti*,
Lat *augmen*, Skt. *ojman* (ओज्मन्)
Gk *pleusomi*, Skt *plosyati* (प्रोष्यति) **plauṣsyati*, etc

(3) Before another vowel sonants are *vowels*, e g
Skt *pupluve* (पुप्लुवे) from an older **pupl*ᵘ*u e*

In such cases the sonant becomes reduced vowel plus the consonantal element it represents e g

Gk. *bios* Skt *j(i)yā* (जिया) Cf Vedic *martya* (मर्त्य) read as *mart(i)ya* (मर्तिय) or *martiya* (मर्तिय) for the metre and (4) initially in front of a consonant or between two consonants a sonant is treated as a *vowel*, e g Skt *plutah* (प्लुत॰), Skt *sunah* (शुन), Gk. *kunós* etc.

31 Vowels

For a long time the I E vowels were supposed to have been faithfully preserved by Sanskrit (i e Indo Iranian branch) only But it has now definitely been demonstrated that Greek and Latin are more faithful in preserving the I E *e *o *a while Sanskrit (and the Indo Iranian branch) confused the three original *e *o *a all in *one a* We have seen above how in the treatment of the I E velars Sanskrit shows traces of an earlier *e inasmuch as it changes the original velars into palatals before front vowels

Examples —

*e Skt *sacate* (सचते) Gk *epetai* Lat *sequitur*
*o Skt *rathah* (रथह्) Aves raθo Lat rota.
*a Skt *ajami* (अजामि) Aves. *azāmi* Gk *ago*

That *e *o *a had also a length can be seen from the following examples:

*ē. Skt. *mā* (मा negative prohibitive particle), Gk. *mē*.
*ō. Skt. *dānam* (दानम्), Lat. *dōnum*.
*ā. Skt. *mātā* (माता), Gk. *mātēr*, Lat. *māter*, etc.

There are, however, instances where for Sanskrit *i* Greek and Latin show an *a*, as in

Skt. *pitā* (पिता), Gk. *patēr*, Lat. *pater*.
Skt. *sthitaḥ* (स्थितः), Gk. *statos*, etc.

From such instances, an indeterminate sound is supposed to have existed in the primitive I. E. This sound is denoted by *ə. This *ə is quite distinct from *a inasmuch as the latter is represented as *a* in the Indo-Iranian group.

To sum up, primitive I. E. had vowels *e *o *a (short and long) and *ə, sonants *y *v *r *l *m *n which were treated as vowels in certain positions and as consonants in certain others; besides I. E. was rich in occlusives too inasmuch as it possessed a velar, a palatal, a labial and a dental series; while *s* was the only phoneme of continuant articulation.

32. Morphology

Surveying as we have done the sound system of the primitive I. E. dialect, we might as well go briefly over the nature of its sound-groups or words; an analysis of these latter would be necessary before we close this part of our study.

If we compare the words in a Sanskrit sentence with those of an identical sentence in any of the modern Indo-Aryan languages the first thing that would strike us would be the peculiar "complexity" of the Sanskrit word. By "complexity" is meant that feature of the Sanskrit word by which it expresses the part played by itself in a sentence by its very form and not as in any modern vernacular by the position i occupies in a sentence. Thus a Sanskrit word like रामम्, *Rāmam*, is in itself sufficient to indicate the part it plays —

irrespective of the position in which it is placed within the body of a sentence To put it in general terms a Sanskrit word indicates its value (i e. the part it plays in a sentence) by a mere change in its form. Thus we have different forms like राम रामम् रामेण etc. to indicate its different relations with the other words in the sentence Moreover we notice in such forms that there is a constant element (as राम in the above example) and a variable element This latter gives its value to the word This variable element that expresses the part played by the word (*viz* the number the gender the case etc.) is called the termination or inflexion. The immutable element preceding the termination is the stem

In the above instance the stem *viz* *Rāma*, is a complete unit by itself But there are cases where the stem would admit of further analysis Take the Sanskrit word *Dataram* (दातारम्) a giver (acc sing) Here the termination is —*am* and the stem is *datr* (दातृ) But this stem is itself composed of two parts *viz* *da* (दा) expressing the idea of giving and -*tr* (तृ) the suffix Thus we find a word like *dataram* (दातारम्) reducible to three elements (1) the root *dā*- (दा) (2) the suffix —*tr*—(तृ) and (3) the termination -*am* (अम्) where the root expresses the general sense the suffix, the exact value and the termination, the part to be played of the word The value therefore of such an I E. word is said to be complex But the elements themselves are not detachable nor do they exist in isolation nor convey any sense by themselves

The order of these elements too is fixed as root suffix and termination The peculiarity of the I E. word is that it contains only one root and one termination but a single word can contain an indefinite number of suffixes

Root

An I E. root has certain phonetic restrict

(*a*) No I E. root begins and ends at an unaspirated stop Thus we can have

or **g'embh-* etc. A Skt. root like *gad* (गद्)-to speak, could only be a borrowing as it ends in, as well as begins with, an un-aspirated stop. (It should be remembered that Sanskrit usually preserves original aspirates, though in case an original word has two aspirates Sanskrit reduces it to one).

(*b*) Roots *beginning with voiced aspirates do not end in* unvoiced and *vice versa.*

(*c*) No monosyllabic root ends with e: o: zero.[1]

Suffix

An I. E. suffix is primary or secondary according as it is added to the root [as in *s'rav-as* (श्रवस्)] or to the stem [as in *s'ravas-(i)ya*]. Moreover some suffixes are added only to particular stems, *e. g.* the suffix *-tr* to the root in *e* degree etc. (See section 34).

Inflexion

I. E. has two varieties of inflexions: (1) one for the verb and (2) one for the noun. These two have only one category in common *viz.* the number– singular, plural and dual. The verb, in its inflexion, indicates the person *i. e.* the speaker, the spoken to, or the spoken of. Noun inflexion indicates the case *i. e.* the relation of the noun with the various other words in the sentence.

33. Accent

Like root, suffix and termination, the I. E. accent also is a morphological element inasmuch as it fixes the value of a word in a sentence. In the Vedic hymns, every word, with a few exceptions, receives a tone. The place of the *udātta* (उदात्त), as this tone is called, determines in many cases the character of and the part played by a word, as the following examples will show:—

Skt. *bra'hman* (ब्रह्मन्) a song...... ...*Nomina Actionis*
Skt. *brahma'n* (ब्रह्मन्) a priest.......*Nomina Agentis*

1. See section 34 below.

Greek agrees in this respect with the Vedic to the extent of even the accented syllable. e g

Skt *va ra h* वर, Gk *tómo s* .. ... *Nomina Actionis*

Skt *vará h* वर, Gk. *tomó s* . ... *Nomina Agentis*

Skt *plavá h* प्लव, a boat, is, by the place of its accent a *nomina agentis* while Greek has retained the *nomina actionis plóos*, navigation, from the same root as in Sanskrit

In the case of a Vedic verb the accent determines the character of the clause (i e idea) It may be noted that like accent, the *absence of accent* too is a morphological element inasmuch as (in the Vedic, for example) an unaccented verb denotes a principal clause and an unaccented substantive, the vocative case.

34 Vowel Gradation

Like the accent and closely related to it, *ablaut* or vowel gradation plays an important part in I E. morphology Besides the I E. the Semitic branch utilises vowel gradation and as it does so more freely than the former, it would be better, to have a clear idea of this phenomenon, to refer to some of its examples An Arabic root is entirely characterised by its consonants The vowels therein only serve to determine the grammatical function of the root as its form, its part to be played in a sentence and so on Thus the Arabic root *qtl*, to kill, has a perfect (active) *qatala*, perfect (passive) *qutila*, imperfect (active) *ya qtulu*, imperfect (passive) *yu qātalu* and so on In all these forms the consonants remain the same *viz qtl* while the vowels change according to the particular formation

A similar phenomenon obtains in the I E. and it was referred to above as *ablaut* or vowel gradation The I E. root is as well characterised by its consonants, *i e*, these latter do not change whatever be the formation It is the vowels that indicate the particular type of formation and beyond that the I E. vowels do not affect the root. Though '

change they do so not as freely as in '

above. The variation too is somewhat fixed. Thus vowels *e or *o vary with *zero*, *i. e.* are dropped. Every morphological element in I. E. contains a vowel, which appears in one form only *viz.* as *e (or *o) or nil. Thus we have the grade *e or *o alternating with *zero-grade*, *e. g.*

e-grade	*o*-grade	*zero*-grade
Gk. *pe'tomai*	Gk. *pôtasmai*	Gk. *eptómen*
Skt. *patāmi* (पतामि)	Skt. *pātayāmi* (पातयामि)	Skt. *paptuḥ*(पप्तुः)
Skt. *sadaḥ* (सदः)	Skt. *sādayati* (सादयति)	Skt. *seduḥ* (सेदुः) <*sezd.[1]

From Skt. forms like *pātayāmi* (पातयामि), *sādayati* (सादयति) etc. it can be seen that long *ē and long *ō also alternate with the zero-grade.

In the case of original diphthongs too the system of gradation is the same, the zero-grade, however, representing only the second element of the diphthong. Thus we have,

ei : *oi* : *i*
eu : *ou* : *u*
er : *or* *ṛ*
el : *ol* : *ḷ*
em : *oṃ* : *m*
en : *on* : *ṇ*

Examples

	Full Grade		Zero-grade
Gk.	*pe'itho* (I trust)	*pe'poitha* (I trusted)	*e pe-pithmen* (we trusted)
Lat.	*fīdo*	*foedus*	*fid-ēs*
Skt.	*bhe'ttum* (भेत्तुम्)	*bhedáyati* (भेदयति)	*bhinná* (भिन्न)
Skt.	*bódhayati* (बोधयति)	*bubódha*(बुबोध)	*bubudhimá* (बुबुधिम)
Skt.	*jóṣati* (जोषति)	*jujóṣa* (जुजोष)	*juṣ-ṭá.* (जुष्ट)

It can be plainly seen from the above examples that there is a relationship between the quality of a vowel and the place of the accent. Thus the full-grade is accented, *e. g.* Skt.

1. See note 1 page 41 above.

bódhayati (बोधयति) *josati* (जोषति) *s rótram* (श्रोत्रम्), *gāvah* (गाव) etc The zero grade is unaccented e g Skt *jus ta* (जुष्ट), *sru tá* (श्रुत) *gav a* (गवा) etc

But this general formula *e* (*e*) o (*o*) *zero* does not explain all vowel changes There are for example forms as,

Skt	*da dhi mi* (दधामि)	*dhitáh* (धित)
Skt	*stha* (स्था)	*sthi táh* (स्थित)
Skt	*dá dā mi* (ददामि)	*di tah* (दित)
Gk	*e sta mi*	*sta tos*

where Skt *a* varies with *i* This *i* was mentioned above as the descendant of I E *ə* and Skt. *ā* goes back to original **e* or **ō* So we have to postulate a gradation **ē* **ō*, **ə* to explain such vowel changes Other I E dialects have instances in support of such a gradation *e g*

Lat.	*se men*	*sa tus*
Lat.	*dō num*	*da tus*
Gk.	*thā mi*	*tha mes* etc

Such is the vowel gradation in the I E languages. In the case of Sanskrit the ancient Indian grammarians have noticed this phenomenon But lacking as they did the materials for a comparative study we should not be surprised if their interpretation be different To them the vowels *i u ṛ* etc, i e the zero grade represented the original vowels and *e* (*e*) o (*o*) etc were the *guna* or *vrddhi* (वृद्धि) of these But we now know that *e* and *o* were the original vowels (though Sanskrit had confused them both into one *a*) and that *i* and *u* etc. are only the zero or the weak grade of the original vowels

This brings us to the end of our survey It has been both brief and hurried But it is still sufficient enough for our purpose *viz* an exhaustive study of the Indo Aryan branch. It was necessary for this to have an idea of the back ground the historical and the structural review of the I E described in the foregoing pages forms this back ground We now turn to the Indo Aryan branch

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PART III

The Indo-Aryans

35. Early Home of the Aryans[1]

If a modern descendant of the earliest Aryan invaders in India were, with the help of something like Wells' Time-Machine, to transfer himself to the days of his ancestors, his difficulty would be in selecting a particular age or year. Nor could he, were he to lull himself into a Shavian dream as in Man and Superman, find his *habitat* of yore. Could he identify his Dream-land with the India he is living in? No; not as long as he sees himself (in the Dream) a sturdy man tending flock of sheep or herd of cattle. "It is not likely to be India," says *Dr. Giles,* "for neither flora nor fauna, as determined by ..language, is characteristic of this area."[2] Where then could this Dream-land be?

This comparison of the probable *habitat* of the earliest Indo-European race (or the "Wiros," as *Dr. Giles* has conveniently christened them) to a Dream-land would appear apposite; for there is absolutely no sense of certainty about its location. Scholars are unanimous only in doubting and agree only in differing. Nevertheless the following among the many views deserve to be noticed.

(1) First comes the view of *Professor Otto Schrader* which long held the ground. "According to him, the domicile to which we could trace back the oldest of the form or forms of speech which ultimately developed into modern Indo-European languages was probably to be sought for on the common borderland of Asia and Europe in the Steppe country of southern Russia."[3]

1. See the Map facing p. 95, L. S. I., Vol. I, Part I.
2. *Cambridge History of India*, Vol. I, p. 68.
3. *Linguistic Survey of India.* Vol. I, Part I, pp. 95.

(2) Secondly, there is the view like that of *J. de Morgan* which places the original home of the tribes speaking the earliest Indo European dialect in Siberia.[1]

(3) The authority of Astronomy (as could be gleaned from the earliest Indo European documents and literature) makes the primitive Indo European a compatriot of the Polar Bear

(4) *Dr. Giles*, on the other hand, discussing as mentioned above, the flora and fauna referred to in the earliest literature, definitely takes back this clan to Europe 'Is there, he asks, "any part of Europe which combines pastoral and agricultural country in close connection, which has in combination hot low lying plains suitable for the growth of grain, and rich upland pasture suitable for flocks and herds, and at the same time trees and birds of the character already described? His own answer is, " There is apparently only one such area in Europe, the area which is bounded on its eastern side by the Carpathians, on its south by the Balkans, on its western side by the Austrian Alps and the Böhmer wood, and on the north by the Erzgebirge and the mountains which link them up with the Carpathians [2]

(5) Lastly may be mentioned the view or views suggested more by honest sentiment than by convincing logic, of persons that make the earliest Indo Europeans the inhabitants of their own country

It should be made clear at the outset that from a purely scientific point of view, only two of the above five would deserve serious consideration, the view of *Professor Otto Schrader* and that of *Dr Giles* Though the first is based mainly on philology while the second calls in the aid of other sciences like geology etc both work back from the (definitely) known to the unknown The facts known are the linguistic materials from the eight early Indo European dialects, but more important than these are the inscriptions of the Mitani and the Hittite tribes of Asia Minor

1 *Ibid.* 2. *Cambridge History of India,*

appears to be Indo-European and the inscriptions themselves are supposed to belong to the 15th century B.C. The question would arise, how did an Indo-European tribe like the Hittites happen to reach this part of Asia Minor in the middle of the second millennium B.C.? According to *Professor Schrader* the earliest tribes wandered forth by a route north of the Caspian Sea and then turning southwards they branched off into two, one turning eastwards into India and the other into Persia and further west. But to this route *Dr. Giles* raises objections on geological grounds and says that the route at the time of the proposed migration would have been impassable to primitive men moving with their families, their flocks and their herds and adds that at the time " the Caspian Sea extended much further to the north and ended in an area of swamps and quick-sands, while at an earlier period which, perhaps however, does not transcend that of the migration, it spread far to the east and included within its area the sea of Aral and possibly much of the low-lying plains beyond."[1]

If, now, this latter conjecture be correct, the Vedic seers must be congratulated on their good memory and its faithful record. For, if we go back for a moment to the Vedic literature, we find that the conditions attributed by *Dr. Giles* to the parts round about the Caspian Sea tally, as if by an accident, with those that be-set the early migratory tribes on their route. Let us take, for example, hymns sung in praise of Indra. While Varuṇa is known both to the western and the eastern tribes Indra is a god peculiar to the latter only. The probable explanation is that the eastern tribes set out on a more adventurous and difficult course of migration and hence they were in constant need of a bold, brave and strategically-minded leader. This role of a leader Indra seems to have played with success. It was god Indra who led these Aryans and their ancestors in those early migrations. The difficulties, therefore, that Indra had overcome would perhaps give us an

1. *Ibid.*, p. 69.

Though it is not known definitely when, where and by whom the Indo-European dialects were first spoken, it might be said that the original speakers probably belonged to the race that flourished in the north of Germany at about the third millennium B.C.

This, it will be seen, would accord with the scanty historical evidence available as well as with some facts suggested by philology. From these northern head-quarters there might have been many migrations, but, on broader lines, two alone could be distinguished. One of these descended to the south into the Greek and the Latin, and spread further west into the Keltic, countries. As in the dialects of these tribes the word for "a hundred" contains a *c* (*k*-) sound, they are classed together as the *Centum* languages. It should not be supposed that all the tribes speaking the *Centum* languages migrated in one direction only; for after some 1500 years we find a few *Centum* dialects far in the east, the Tokharian in Turkestan and the Hittite in Asia Minor. But the majority of tribes that migrated eastwards were speakers of the *S'atam* dialects, *i.e.* dialects in which the word for "a hundred" contained a *s'*- sound. It was shown above that the Indo-European **s* sound underwent different changes in the east, *i. e.* in the Armenian, Slavonic and Indo-Iranian dialects. From a closer study of the development of **s* in these latter we could say that their speakers travelled together for some time. At a certain stage in the course of the migration the Armenians branched off thus leaving the Indo-Iranians and the Slavs as companions. Ultimately the Indo-Iranians were left alone to reach the furthest point in the east. Of the two tribes of the *Centum* dialects that probably followed the Indo-Iranians during the last stage, the Tokharians remained in Turkestan while the Hittites were pushed further west.[1]

1. Cf. the following in this connexion.

**k¹*	becomes	*s'* in Indo-Ir.,	Balto-Slav.	& Arm.	but	*k* in Gk.	Latin	etc	
**kw*	"	*k* "	"	"	"	" *qu* or *p*	"	"	
**g¹*	"	*j* or *z*	"	"	"	" " *g*	"	"	
**gw*	"	*g* "	"	"	"	" " *b*	"	"	

Krumu (Kurrum) and Gomati (Gumal)[1]. But it was not long before they started on their adventures further eastwards into India.[2]

37. The Indo-Aryans or the Iranians in India

It should not be supposed to start with that the invasions, *viz.* the adventures referred to above, followed one close on the heels of the other or that one large horde invaded, conquered and settled in India once for all. As has been suggested above, even when the Indo-Iranians had established a normal life in and about Persia, some restless tribes were frequently making incursions into neighbouring regions. But later on some sort of systematised treks into India must have started. Surely it must have taken at least some decades, if not centuries, before some of these tribes secured for themselves a settled life in the prosperous land of the Five Rivers.

Though the fact of general occupation of Indostan is quite clear, the probable route that led these invaders into India is as proved as the Elephant in the "Six Blind Men of Indostan" episode. Scholars differ as regards both the route of the invasion and the methods of conquest and settlement. That the invaders poured forth from Afghanistan through the Kābul valley is the theory usually accepted.[1] On the other hand, *Mr. Pargiter* is of the opinion that the route lies not through the north-west frontier but through the mid-Himalayan region.[3] But as *Dr. Keith* says, " It is easy to frame and support by plausible evidence various hypotheses, to which the only effective objection is that other hypotheses are equally legitimate and that the facts are too imperfect to allow of conclusions being drawn."[1] So unless stronger evidence is coming forth to the contrary, the " Kābul-theory " will be accepted as a workable hypothesis. One would be better justified in holding

1. *Cambridge History of India*, Vol. I, p. 79.

2. See *Keith* : " Indo-Iranians " in *Bhandarkar Com. Essays*, pp. 81 ff.

3. *Linguistic Survey of India*, Vol. I, Part I, p. 115, Note 1.

that the earlier invaders or the majority of them came through the Kābul valley.

Is there any justification in referring to the invaders as the earlier and the later? Though it would be impossible to spot each and every successive stage of the invasion, it would, on the other hand, be much less so to discriminate between *the earliest* and *the latest* Thus *Hoernle* has put forward a theory that two broad waves of invasion could be discerned, one preceding the other. This theory is known as the *Wedge theory*, because that distinguished scholar further maintained that the second invading horde shot through the Punjab *like a wedge*, thus scattering in all directions the tribes already occupying that region. This theory, he adds, is justified by the evidence of the modern Indo Aryan vernaculars.

In the Introductory Volume (pp 116 7) to the Linguistic Survey of India *Sir George Grierson* has shown that, to explain the difference in the modern Indian vernaculars, it was not necessary to postulate two distinct invasions. On grounds of phonetics and syntax he himself has classified the modern Indo Aryan dialects into two groups. " The modern Indo Aryan vernaculars fall at once into two main sub branches, one spoken in a compact tract of country almost exactly corresponding to this ancient Madhyades'a and the other surrounding it in three quarters of a circle beginning in Hazara in the Punjab and running through the western Punjab, Sindh, the Marāthā country, Central India Orissa, Bihar, Bengal and Assam (p 117) The former he calls the Inner Sub branch and the latter the Outer Sub branch. This *Inner and Outer theory* is based on the " political state of affairs . borne out by Indian tradition, *viz* " a central people surrounded on the west, south and east by another '

As this, however, would prematurely lead us to the modern Indo Aryan dialects, we shall ... on of the Aryan invasion into India It was ... the Indo-Iranians were still in P

advancing into neighbouring regions. During one of such advances to the north-east was occupied the country of Dardistan. These tribes that early occupied the rugged country south of the Hindukush seem to have been quite bold and vigorous. Soon their sway extended along the Indus and to the land of the Five Rivers. Years afterwards when the Indo-Iranians from Afghanistan poured into India they had to encounter their erst-while brothers. It is but natural that the Dardic mountaineers, rugged and adventurous, should, though belonging to the same stock, be derided by these later comers into India who had already cultivated the habits of a comparatively more placid life. Even in early Sanskrit literature the Dardic conquerors are referred to as *naṣṭa, i. e.* absconders or lost (souls). Still later they were classed with the non-Aryans as *Pis'ācas.* However, the earliest incursion into India was that of the Dardic conquerors and even now in Sindhi, Lahnda, and western Punjabi Dardic influence could be felt.[1]

38. The Aryans over India[2]

In contrast to the adventurers that early rode over the Pamirs and occupied the country south of the Hindukush, the Aryans from Afghanistan migrated into India, as mentioned above, through the Kābul valley. By 1000 B.C. the new-comers must have settled in large numbers in their new home, for, the date of the composition of the bulk of Ṛgveda cannot be brought lower than 1000 B.C., while it could be asserted with an amount of definiteness that the bulk of Ṛgveda was comp[illegible] ia itself.[3] That the Vedic tribes settled first in th[illegible] ent fro[illegible] arlier mention in the hymns of t[illegible] V[illegible] m), the *Asikni* (the Chenab), t[illegible] and the *Sutudri* (the Sutlej) [illegible] nd about

1. *L. S.*
2. *L. S. I.*
3. *C. H. I.*

Sarasvati ("the modern Sarsūti, midway between the Sutlej) and the Jumnā", *Keith*) that played an important part in the history of these invaders Great events took place here It was here as well that the Vedic tribes settled to perform sacrifices and to develop art and literature and prospered all round The best part of the invaders found the soil congenial and made no attempts or had no inclinations for further migration That these new settlers, as time went on, took pride [illegible] wly adopted domicile

. . .

तं देवनिर्मितं देशं ब्रह्मावर्तं प्रचक्षते ॥
तस्मिन् देशे य आचार पारम्पर्यक्रमागतः
वर्णानां सान्तरालानां स सदाचार उच्यते ॥

"The rivers Sarasvati and Dṛsadvati are divine the land that lies between them is (also) divine i e created by Gods; it is called Brahmâvarta

"The moral code handed down in regular succession in that country is a code proper to (all) the castes and sub-castes. (Laws of Manu II, 17-18)

When we say that the tribes permanently settled here we only mean that these tribes cherished no longer any desire for further conquest or migration and that as a result, they lost their adventurous habits But in spite of all they were compelled to move over a wider area Move they did, by spreading westwards and southwards along and about the modern Rājputān The Vindhya mountains in the south and probably the original inhabitants in the west (along the Indus) must have checked this career of slow expansion. But wherever they went, these denizens of Brahmâvarta, instead of asserting themselves with dash and vigour, utilised, for that purpose, a self arrogated sense of superiority and complacency They hedged themselves within this metaphysical circle drawn by a Prospero's wand Their spread, too, was in circles like an expanding eddy, the central or starting one being Brahmāvarta

(or the *Āvarta i. e.* the eddy of Brahman). The second circle was, to quote Manu (II 19) again,

कुरुक्षेत्रं च मत्स्याश्च पंचालाः शूरसेनकाः ।
एष ब्रह्मर्षिदेशो वै ब्रह्मावर्तादनन्तरः ॥

"The (holy) field of the Kurus, the Matsyas, the Pañcālas and Śūrasenakas—these form the Brahmarṣi country adjoining Brahmāvarta."

The circle next to this was

हिमवद्विन्ध्ययोर्मध्ये यत्प्राग्विनशनादपि ।
प्रत्यगेव प्रयागाच्च मध्यदेशः प्रकीर्तितः ॥

"The country known as the Middle Country, between the Himavat and the Vindhya mountains, to the east of Vinaśana (where Sarasvati disappears), and to the west of Prayāga." (*Ibid.* II, 21).

Lastly, the *outermost circle was the* Āryāvarta,

आ समुद्रात्तु वै पूर्वादासमुद्रात्तु पश्चिमात् ।
तयोरेवान्तरं गिर्योः......................॥

bounded by the oceans to the east and west and lying between those two (*viz.* Himavat and Vindhya) mountains. (*Ibid.* II, 22)

The tribes of Aryans that developed in this area carried on most probably an undisturbed career, *i. e.* they came not in contact with any other rivals, aboriginal or otherwise. If this were so we could easily understand the group of the languages in this part–the Inner Sub-branch of *Sir George Grierson*—keeping as near as possible to the standard dialect that developed later into classical Sanskrit.

On the other hand, as mentioned in Section 12 above, there were other tribes that were not content to lead such a placid life, and so started further eastwards on adventurous expeditions into unexplored lands. They spread into Magadha (modern Bihar) and from Magadha we can imagine two branches taking to two different routes, one further east into Vanga (modern Bengal) and the other that turned south into the Oṛiya country and then due west, thus arriving at the other side of the Vindhyas till they reached the Arabian Sea. Thus

Eastern Hindi, Bihari, Oriya and Marathi would stretch like a chain on one side, while on the other *i e* in the east, Eastern Hindi, Bihari, Bengali and Assamese would extend like another chain That all these dialects agree among themselves in points of difference from those of the Āryāvarta is evident from the fact that *Sir George Grierson* himself a close student of all these dialects, should be tempted to class them as the Outer, and the Inner, circle dialects respectively.

As this is not the place either to propose new theories or to expose old ones, we would only mention here a few points that would lead one to the conclusion suggested above *viz* that from Eastern Hindi to Marathi in the south west through Bihari and Oriya, and to Assamese in the east along Bihari and Bengali, we find two regular linguistic chains and going back a little the Eastern Prākṛts too from Ardha Māgadhi to Mahārāstri form a chain of regular and successive links

(1) If we agree with *Beames* that "Synthesis or putting together is the key note of the ancient languages, as analysis or dissolving is of the moderns [1] then the synthetic languages classed as the Outer Languages (Bengali, Bihari, Oriya, Marathi) should be considered "ancient , *i e* undeveloped in contrast to the analytic—the Inner Circle languages (western Hindi Gujrati Marwadi etc)[2] which would be "modern *i e* well developed[3] This difference in development is due to the fact that the tribes of the Middle Country, as described above, were settled and established earlier than those due east

(2) The linguistic equipment, so to say, of the eastern tribes that kept on wandering much longer than their western brothers would not have been as great as that of the latter, When, however, ultimately they came in closer contact with the non Aryans, conquered them and settled to a normal life,

1. *A Comparative Grammar of the Modern Ar . . .* *of India*, Vol I, p 113 2 Cf *L S I*, V . . . 118
3 *Beames*, Vol I, p 48

it was quite to be expected that their stock of words shou lie far below their needs. Hence probably they had to borr old words direct from their ancient speech;[1] while wi their western brothers the words had undergone a natural c velopment. That such is the case is borne out by *Bean* who says: " In a general way it may be said that the p portion of *Tatsama* words is greatest in Bengali, Oṛiya a Marathi; less in Hindi and Gujrati; and least in Punjabi a Sindhi."[2]

(3) On p. 140 (in *L. S. I.* volume referred to abov *Sir George Grierson* has discussed the languages (and illu trated the same with a map) in which *l* is the characteris of the past participles. On p. 141 he says; " This *l*-parti ple, therefore, is not only current over the whole of the Eas Aryan India, but reaches through an unbroken chain of di lects, all imperceptibly shading off into each other, acro India to the Arabian Sea, and thence northwards into Gujra and Sindhi, but leaping across Lahṇḍa, into the Dardic count of Indus Kohistan. This is illustrative of the intimate relatio ship which exists among all these Outer forms of speeches; and, we might add, also illustrative of the *Māgadhi- Marati chain-theory* suggested above, if we bear in mind the fa that (Eastern) Māgadhi Prākṛt is an *l*-dialect *par excellenc* (*i. e.* Skt. *r* and *d* become *l*).

(4) Lastly may be mentioned the treatment in Prākṛt of the Sanskrit intervocalic stops. Speaking generally the suc cessive stages in the development of a stop in this positio would be, (*a*) softening, (*b*) further weakening, and (*c*) tota disappearance. Starting from S'auraseni across Ardha-Māgadh and Māgadhi down to Mahārāṣṭrī we meet with exactly wha would be expected *viz.* softening in Sauraseni, further weaken

1. This can be illustrated by similar conditions obtaining in mo dern days. If Marathi, for example, wants a new technical word i goes direct to Sanskrit and utilises the Sanskrit (*i. e.* *Tatsama*) forms.

2. Vol. I, p. 29.

ing in the Eastern Prākṛts (as the *laghu-prayatna-tara-ya-kāra*) and total disappearance in Mahārāṣṭrī, *e. g.*

Skt. *S'ata*-"a hundred," Saur. *Sada*, A-Mgd: *Saya*, M. *Saa*

... ...

As we would be straying too far from our subject at this stage we shall wind up the discussion by adding that it will be left for another place and till some further researches There is, however, one point to be noted in connection with the difference between the *Inner* and *Outer* languages. It is more or less a corollary of the fore going discussion. While the *Inner* languages developed mainly with and among the Aryans, the *Outer* languages were handled mostly by the non Aryans brought under the sway of the Aryans. The differ ence between the two should be, under ordinary conditions, precisely the same as the difference between, say, the English of England and the English of British India.

39. The Modern Indo-Aryan Vernaculars

To return to the story. The Aryans thus spread over the continent of India. The dialects they spoke spread and developed as well and, as time went on, they appeared so different from each other that each earned a distinctive name for itself! Thus at one time we had the seven Prākṛts (see Section 10)! That they should have been spoken at some time or other would be but natural, that the written Prākṛts represent the spoken type seems hard y probable. From the few samples we have of written Prākṛts it is impossible to arrive at any conclusion. After the Prākṛts followed the Apabhrams'a stage (see Section 17). To close this historical review we have only to add a brief description of the modern Indo Aryan languages

The Frontier Group

By the term Indo-Aryan are meant those languages and dialects that are the results of the direct development of the dialect or dialects spoken over modern India by her earl invaders from the north-west. Starting from

corner of this probable route of the early Indo-Aryan (Vedic) tribes we meet, at the very threshold, three groups *viz.* (1) the *Kafiri* in Kafiristan, (2) the *Khowar* in Chitral valley, and (3) the *Dardic.* It was suggested above (Section 37) that the tribes speaking these dialects migrated eastwards much earlier than the (other) Vedic tribes. But nevertheless it could not be doubted that the two lived together quite a long time in Afghanistan and spoke dialects not far removed from each other. These mountain dialects, it is true, differ considerably from other continental Indo-Aryan dialects of modern India; but this is due to the fact that the speakers of the Paiśāci dialects, as they were later called, have been ever since isolated in their hilly tracts. On the other hand, this very isolation has been able to preserve many of these dialects in their most archaic form. Thus, for example, the Pashai dialect of Kafiristan uses even today a phrase like *Sungas Putra* wherein, without much variation, it has retained even the case-termination of the equivalent Sanskrit phrase *S'unakasya putraḥ*, "the son of S'unaka." As a matter of fact, all the dialects in this part show archaisms and, on a comparison with the Vedic and its subsequent dialects in India, on would be justified in including these frontier dialects in th Indo-Aryan group. Of these three, the Kafiri has four dialects Bashgali, Wai, Pashai and Wasī-veri. The more important dia lects of the Dardic group are the Kaśmiri and the Siṇa; there ar three more of the same group *viz.* Kohistāni, Maiyā and Tīrāhi.

Lahṇḍa and Sindhi

Coming southwards we have the Lahṇḍa or Western Punjabi spoken by a population of about seven millions and further down along the Indus and on either side of it is Sindhi which claims half as many speakers as the Lahṇḍa. Lahṇḍa comprises numerous dialects slightly varying from each other; in the Linguistic Survey only twenty-two have been noticed. In Sindhi, on the other hand, as many as six dialects can be clearly recongised. The standard dialect, the one that is

employed for literary purposes, is the Vicoli, spoken in Central Sindh, while Siraiki, a dialect of the north, is more or less a variety of Vicoli As opposed to the Siraiki or the northern there is the Lāṛu or the dialect of lower Sindh Between the Central and the Lower dialects is spoken, in the State of Las Bela, the dialect Lāsi which represents a transitional stage between Vicoli and Lāṛu To the east in the desert are the hunting tribes of Thaṛu whose dialect is known as Tharēli Lastly Kacchi, as spoken in Cutch, is a mixture of Sindhi and Gujrati It should be noted in this connexion that the old Hindu grammarians had recognised in this part a Paiśāci dialect called the Vrācada Apabhramśa

Rajasthani and Gujrati

To the east of Sindhi spreads Rajasthāni the language of Rajputanā and Central India Though there are numerous dialects belonging to this group they could all be classed under four heads (*a*) the Marwāri, spoken in Mārwār, Mewār, Bikaner and Jaisalmer, (*b*) the Jaipuri and Harauṭi in the Central East, (*c*) the North Eastern group where Mewāti is spoken in Alwar and Ahīrwaṭi to the south and south west of Delhi and (*d*) the Malvī as spoken in the Mālwā country round about Indore Besides and beyond, Rajasthāni also penetrated into Kathiawar to the south west where it was later recognised as Gujrati. As late as the 15th century A D Mārwār and Gujrat had one common language and it is only within the last 400 years that Gujrati established itself as a separate dialect The Prākṛt grammarian Hemacandra who lived in the 12th century A D was a native of Gujrat and in his *Desīnāmamālā* he cites words from the Apabhrams'a prevailing in his parts

The Bhili Group

Like a wedge between the Rajasthāni and Gujratī stretc' the Bhili dialects among the hills between Ajmer Abu *Sir George Grierson* (*L S I*, Vol I, P

of the opinion that the Bhili dialects have a non-Aryan basis to begin with but that now they are thoroughly Aryan.

W. Hindi and E. Punjabi

Travelling from the western coast of Gujrat along Narmadā, we have, on our right, Marathi to the south, and then from where Narmadā finds its source if we go northwards across Central India we find, on our right, two big groups *viz.* Western Hindi and later on, in the north, Eastern Punjabi. These two claim between themselves about fifty millions of speakers of whom nearly three-fourths belong to the first group. Between Sirhind in the Punjab and Allahabad in the United Provinces lie the five dialects of W. Hindi, *viz.*, (1) Bāngāru to the south-east of the Punjab, (2) Hindostani round about Delhi, (3) Kanauji and (4) Braj Bhākhā to the east, and (5) Bundeli in the south. Of these, Braj Bhākhā is a dialect spoken in the Vraj country, the home of the Sauraseni Prākṛt; while it is Hindostani that has now attained distinction as the *lingua franca* of modern India. The E. Punjabi, as its name denotes, is mainly confined to the eastern half of the Punjab, though it comprises, in the north, the southern half of Jammu and, in the south, the State of Bikaner. In these extensions to the north and south, it is called the Dōgri, while that of the E. Punjab is the standard dialect.

Marathi

South of the Narmadā is Marathi extending right across the Peninsula. It is generally supposed to be a direct descendant of the Mahārāṣṭrī Prākṛt. In the modern language four main dialects could be recognised: (1) Konkaṇi along the southern half of the west coast from Mālwan in the north to Karwar in the south, (2) the Konkaṇi standard along the northern half of the west coast from Ratnagiri to Daman, (3) Deś round about Poona, and (4) Nāgpurī dialect of the Central Provinces, Berar and parts of the Nizam's dominions.

E Hindi

The eastern half of the Continent is [illegible] groups, *viz.*, E. Hindi, Bihari, Bengali, Assamese and [illegible] the south. Of these, E. Hindi goes back to the [illegible] Prākrt. In the modern language spoken over [illegible] —Oudh, Agra, Baghelkhand, Bundelkhand, [illegible] and the Central Provinces—three main dialects [illegible] cognised; the Awadhi, the Bagheli and the [illegible]

Bihari

Bihari is a language spoken over a [illegible] modern United Provinces of Agra and Oudh. [illegible] within its area, the earlier part of the country where [illegible] Prākrt was spoken. The Modern Bihari has three [illegible] (1) the Maithili with Darbhanga as its centre and [illegible] ern Monghyr, Bhagalpur and west Purnea, (2) the [illegible] southern Bihar and Chota Nagpur, and (3) the Bhojpuri [illegible] ern Bihar and the eastern districts of the United [illegible]

Bengali and Assamese

Bengali is the language spoken over the area of [illegible] Bengal. No dialects as such have been recognised [illegible] cept the Standard or the Bengali used by the educated [illegible] the other as employed in the ordinary speech of the [illegible] To the extreme north east is spoken the Assamese and [illegible] cept for the fact that it has an early literature of [illegible] considered no more than a dialect of Bengali.

Oriya

Oriya is a neighbour of [illegible] ken mainly over the area of [illegible]

The Pahari Group

Besides the [illegible] ndo-Aryan [illegible]

of the Himalayas. Its name Pahāṛi comes from the word Pahāṛ, meaning, a hill-fort. There are three sub-groups of Pahāṛi: (1) the western Pahāṛi bordering to the west on the E. Punjabi, (2) the eastern Pahāṛi or the Nepalesē spoken mainly in Nepal, and (3) in-between the two the Central Pahāṛi.

Indo-Aryan Languages outside India

Though the Indo-Aryan languages of the modern days are thus mainly confined to the sub-continent, there are some groups outside India altogether. Such are the Sinhalese language of southern Ceylon and the Romani languages of the wandering gypsies of Asia. First as the missionaries of a prospering, and later as the unfortunate followers of a persecuted religion, the Buddhists of India travelled to other places. Ceylon, it appears, was colonised by some Buddhists with the result that over a part of the island we find an Indo-Aryan language. A dialect of the Sinhalese—Mahl is spoken in Minicoy and the Maldive islands.

Early Literature

It would not be expected that each and every language or dialect mentioned above should have a literature. As a matter of fact, on the whole, the modern Indo-Aryan languages could not boast of any literature for a long time to come. Though the few literary samples have all been mainly inspired by religion, the earliest work, strangely enough, is of a secular character. Variety and scope of the literature of these days have been unduly circumscribed by a religious outlook throughout. Thus the *Pṛthīṛāj Rāsau* of Chand Bardai, composed in the Mārwāri dialect of 1200 A.D., claims to be historical in purpose but is far otherwise in execution and outlook. Its historical importance is just as much as that of the earlier Purāṇas. But nevertheless it is only in the Rājasthāni and the Assamese groups that works of a historical or secular character could be found. Gujrati, an off-shoot of Rājasthāni, is also important

from this point of view. As mentioned above the grammarian Hemacandra was a native of Gujrat From his works we get an idea of the language that branched off later into Mārwāri and Gujrati -But of special interest are two works, the *Mugdhāvabodhamauktika* and Gunaratna s *Kriyā ratna-samuc caya*—two Sanskrit grammars of the 14th century. As they are written *in the Gujrati of those days their* historical value for the study of that language could not be minimised. Generally speaking, the literary career of the modern Indo-Aryan languages begins only as late as the 15th century A.D. In some languages like the Punjabi, Sindhi and Lahṇda there is no literature beyond ballads and folk songs. In others, though the literature is scanty and mainly religious, there *could be found some of the purest gems*. Such a one, for example, is the *Rāmāyana* of Tulsī Dās who lived late in the 16th century. Its popularity is undiminished even to day though it is written in a dialect of E Hindi Equally known is a work of the same name by Sūr Dās who lived in the middle of the 16th century and wrote in the Braj dialect of W. Hindi Likewise Bengali, Bihari, Assamese and Oṛiya, all *claim religious works*—either *original or translations* from Sanskrit—dating back to the 15th century.

Marathi is an exception in two respects. On the one hand, it is the earliest of the modern Indo Aryan languages to be employed for literary purposes, and on the other, it has a copious literature As early as the 12th century Jñānadev wrote his *Jñānes'vari*, a running commentary on the Bhagavad gītā. The author *makes boast of the fact* that he has written the work in pure *Marhātā* There are Marathi Inscriptions too, dating back to the 13th century. There were other great poets as well who followed Jñānadev, like Nāmdev, S[illegible] Tukāram and Rāmdās (both contemporaries of the [illegible] Śivāji) and Moropant (1720 A.D.). [illegible] Indo-Aryan Vernaculars are very poor in [illegible] it the Sanskrit *complex, or the love of*

the ease of composing devotional songs or of conveying homely truths, the fact is clear that the prose style was very late to develop. Beyond a few Inscriptions and proverbial sayings there is hardly any prose in the early development of the modern Indo-Aryan languages. It is an irony that Hindi which early entered a distinctive claim as the *lingua franca* of India should be the last to be employed for literary purposes.

To complete the narration it is necessary to add that during the last fifty years a Renaissance has been sweeping over India and now every language is growing a literature worthy of consideration; the palm, however, will have to be awarded to Bengali and Marathi (and quite recently Gujrati) which can show best works in nearly every branch of literature, as drama, history, fiction etc.

40. Pali

It must have been noticed that so long practically nothing has been said about Pāli, the language of Buddhist Canons. This silence was deliberate. Pāli, to begin with, is a purely literary language as far as we know it. While samples of Prākṛt could be found, for the present, mostly in works of a secular nature like drama etc., Pāli is used mainly (why, only) for religious purposes. It would not have been unreasonable to hold that Pāli was only a literary Prākṛt. It was suggested above (Section 13) that Pāli and Classical Sanskrit grew side by side. As a matter of fact, except for a few phonetic variations and case-forms, Pāli shows no essential traces of divergence from Classical Sanskrit. Pāli "has preserved eight of the ten tenses and moods, whence it follows that verbal forms of these were then current in the language. Pāli, therefore, represents middle Sanskrit or the usage that prevailed during the period between the composition of the Brāmaṇas and Yāska or Pāṇini and must have begun to be formed during that period."[1] It will have to be added,

(1) Bhandarkar, *Wilson Philological Lectures*, 1874, p. 64.

however, that while Classical Sanskrit was fixed by grammar, Pāli, as it represented only attempts of polishing the Prākṛts for literary purposes, was more elastic.

All this would be untenable for want of sufficient data. It is true that Pāli, as *a language*, is used mainly by the Buddhists and solely for Buddhist (*i. e.* religious) literature. On this fact *Professor T. W. Rhys Davids* has the following

r propaganda, no

ie varying dialect

of the Eastern

Mediterranean, which they found ready to their hands; so the Budha and his followers adopted this common form of vernacular speech varying no doubt slightly from district to district, which they found ready to their hands The particular form of this common speech, in which the Pāli canon was com posed, was almost certainly .....the form that was current in Avanti "[1]

In the last quotation two propositions have been suggested, *viz*, (1) that Pāli was a vernacular speech and (2) that the home of Pāli was Avanti. Important as these facts would be to a historian of the Indian languages there is, unfortunately, *no such simplicity or unanimity in accepting them* Scholars disagree[2] *Oldenberg*, for example thinks that "the home of the Pāli language must be looked for more to the south than to the north of the Vindhya mountains.' According to *Franke*, the original home of Pāli "was as nearly as possible the country between the middle and the western *Vindhyas*.' Thirdly, *Windisch* believes that Pali is polished Māgadhi Prākrit that has been embellished for literary purposes and influenced by Sanskrit, is now, like language a mixed dialect. To these views at of Jales *Bloch* who thinks that geneous

1. *C H L.* Vol *I p 187* Pāli in

2. Cf. *Sir George Grierson* *Bhan Com Essays*, Vol *I*, pp.

language and that Ujjain or some place in the western part of India must be its probable home.

In spite of, rather because of such divergent views one would be tempted to look further into the question. In considering the Pāli language, one thing will have to be remembered, *viz.*, that centuries elapsed before the sayings of Buddha were committed to writing and before commentaries and expositions arose. All these later attempts have been conveyed through a medium now known as the Pāli language. How did this name come to be applied to the language of the Buddhist canons? Could the language of the Buddha and that of later Buddhist writings be one and the same?

It cannot be doubted that the Buddha himself conveyed his message through the dialect of his own province *i. e.* a dialect prevailing in Magadha. Disciples flocked to him from all parts of India. Of those early days it could not be said that the various dialects were so different from each other as to be mutually unintelligible. From whatever part of India they came these disciples could follow their teacher. But when these enthusiastic converts carried the message back with themselves, we can easily imagine them ardently pouring it forth to the masses *in their own dialect with, probably, a reverent sprinkling of "Māgadhisms"*. Thus the Teacher's message was carried throughout the length and breadth of India and also outside. Buddhism was now preached in all dialects. This situation continued for a long time till, under the compulsion of meeting powerful attacks from outside, the need was felt to commit the Lord's sayings to a systematic treatise form. We know those treatises and we know the language in which they are composed; and we also know that this could happen only long after the Buddha.

Where did this literary activity take place? To answer this question the following remarks of *Sir George Grierson* would be much helpful. "This (*i. e.* the Takṣaśilā) University was famed in early Buddhist times. According to the

Jātakas it was the only great University in India Numerous pupils went to it from Eastern India, from Magadha and Benares The Buddha himself, as a Bodhisatta, studied there in several previous births In many cases he went there in a former birth as one of the numerous sons of Brahmadatta, king of Benares, and in other births he was even a professor there In fact a perusal of the Jatakas shows that during the period in which they were composed Taksasilā was considered to be the only place in India where a Buddhist could get a complete education Finally in Jātaka 229, the Bodhisatta is represented as king of Taksasilā. [1]

In the light of this evidence it would not be enough to hold merely that the work of Buddhist writing most probably took place in some big centres of learning, but one would be justified to go further and presume that at least the great part of Buddhist Composition took place in and about Taxila If this were so, it would be easy to understand and explain many things If Pali, for example is a *mixed language,* nothing could be more expected than that the medium employed, in common and for purposes common, by writers hailing from different parts of India should be so. If Pāli as *Sir George Grierson* says (p 123), is closely connected with Paiśāci Prākrit, it could not be otherwise as the country round about Taksasilā was the home of these Paiśāci dialects. If Pāli (literary) again differs from other Prākrits in being more archaic we can imagine that band of Pāli writers thinking hard and keen on introducing archaisms and "Māgadhisms" to give their works a halo of sanctity Anyway Pāli, as we find it, cannot represent any particular Prākrit nor can it claim a direct descent from Magadha. At best Pāli represents an artificial literary type, hence the [illegible]. Unlike Classical Sanskrit, however, Pāli is based on the spoken [illegible]

Lastly, we can also see why the [illegible] Pāli It seems more than probable that on [illegible]

1 *Ibid.* p. 123.

India proper no literary work was undertaken in connection with Buddhism. It was in places like Takṣaśilā and Ceylon that the Buddhist writings were composed. If the legend of Kaniṣka and Aśvaghoṣa has any historical value, then it might be added that the north-west of India long continued to be the home of Buddhist influence and literature. Anyhow, it would not be wrong to assume that Pāli literature originated outside the pale of Vedic (*i. e.* non-Buddhist) Aryans, *i. e.* in the neighbourhood of the sub-continent of India. In that case Pāli would be, quite naturally, a neighbouring dialect. Most probably it was so. The word *Pāli* is not to be derived from *Prākṛta* through *pākaṭa*, *pāaḍa* and then by a change of *ḍ* into *l* to *pāala* or *pāli*. If the above suggestion were to hold ground the word *pāli* would go back to Skt. *prāleya* or *prāleyaka* meaning 'a neighbour, neighbourhood, frontier' etc. But tempting as it is, it would be better, with the present evidence, to accept it as a tentative suggestion.

Epitome

This brings us to the close of our brief survey. From their home in Persia in the middle of the second millennium B.C., we followed these sturdy races of north-west Europe over Afghanistan and then into India across the Pāmirs, the Hind Kush and the Kābul valley. It was in Persia that the tribes took for themselves the famous title of Aryans. In India, as Indo-Aryans, they spread south, east and south-west; and within a thousand years they stretched their sway over the continent of India. Removed from each other by time and distance, the early tribes had now established themselves as so many petty principalities speaking as many dialects. Necessary, though difficult, as it is, the probable course of their expansion in and over India has been discussed above. With all these facts in our mind, we would now turn to another important side of our thesis, *viz.* the internal development of the languages and dialects of these early invaders of India.

PART IV

MODERN INDO-ARYAN DIALECTS

41 Indo-Aryan Phonology

In the foregoing sections we have attempted to trace the speakers of the Indo Aryan languages to their original home, and incidentally the probable route and development of the migration was suggested The importance of such a review in the study of the Indo Aryan languages cannot be better emphasised than by an illustration. The waters of the Ganges are believed to be holy and, suppose, we want to study them If we know the source of the Ganges and the parts of India over which the Ganges has flowed, it would be much easier for us to analyse, understand and explain its waters What we cannot understand from the place where we stand, we might be able to explain with reference to another plain What we cannot see from the soil might be more clear from the source Likewise the development of the Vedic languages over the continent of India could be analysed with less inaccuracy and more reason if we could call to aid the historical data The truth of the statement would be more evident when we turn to the analytical study of the Indo-Aryan languages their phonology and morphology

The Vedic Sound-System

From the purely phonetic point of view it might be said that there has been practically no change from the early days to the present In the face of unrecognizable changes in sounds and within the body of sound groups such a statement might appear startling It only means, however, that though sounds etc have changed *the sound-system remains essentially the same* Vowels and consonants are the [illegible] not the same vowels and the same [illegible]

days; on the other hand, the later ones are evolved from peculiar causes and particular positions.

It has been explained above that the original I. E. had the vowels *e, *o, *a, (short or long) and *ə, was more rich in sonants (consonants and vowels) and stops, while there was only one sibilant. The Vedic, too, has vowels ē, ō, a, i, u, ṛ (short or long), a double development of the I. E. velars *viz.* as gutturals and as palatals, as well as the labial and dental stops, three sibilants and, what is more, a new class of cerebrals. The sonants and the liquids, too, are retained Though the sound--system of the Vedic is practically the same as that of the original I. E., we shall now see if the particula sounds themselves have been retained.

42. The Vedic Vowels

Sanskrit *a*

(1) The I. E. *e, *o and *a are confused in Sanskr with the result that all these three original vowels become *a*.

Examples

**e*

Skt. *sacate*, Lat. *sequitur*, Lith. *Seku'*.
Skt. *hárah*, Gk. *theros* <*g^w*heros*.
Skt. *catvārah*, Gk. *tettōres* <*k^w*etwōres*.

**o*

Skt. —*as* (nom. sing. term.), Gk. —*os*, Lat. —*os*.
Skt. *katarah*, Gk. *poteros*.
Skt. *ghanáh*, Gk. *phonós*, *g^w*hono*—

**a*

Skt. *apa*, Gk. *apo*, Lat. *ab*.
Skt. *ajāmi*, Gk. *ago*.
Skt. *anti*, Gk. *anti*, Lat. *ante*.

(2) Besides *e and *o I. E. had an indeterminate * (See *Meillet*. p. 74). This *o might be the unacce

*e or *o In Sanskrit, it becomes *a* in all cases except before *r* and *l* where it becomes *i* or *u*

pot∂—, Skt. *pati (tah)*

(3) The I E. sonant vowels **n* and **m* become *a* in Sanskrit, *e. g*

Skt *a jñātah*, Lat *ignōtus (*in gnotus)*

Skt. *matáh*, Gk. *—matōs *mntos*

Skt. *gatih*, **gʷmte—*

Skt. *s'atam*, **k'mtóm*

Skt *das'a*, Lat. *decem*, **dek m* etc

Sanskrit ā

(1) As in the case of *a* Sanskrit has confused **e*, **ō* and **ā* into one *ā e g*

**e*, **gʷēn*, Skt *jani*, cf Eng *queen*

**mē*, Skt *mā* (neg prohibitive) Gk. and Lat *mē*

**ō* Skt *dānam*, Lat *donum*,

Skt *gām*, Gk *bon*, **gʷōm—*,

**ā* Skt *bhrātā*, Gk *phrater*

Skt. *mātā*, Lat *mater*

(2) Sonant vowels **n* and **m* before **∂* give us a long *ā* in Sanskrit *e g*

**g'n∂—*, Skt *jā tah* etc

Skt i and u —

(1) The sonants **y* and **v* between two consonants become **i* and **u* (See *Meillet* p 89, as to all the conditions under which these sonants become vowels) Skt *i* and *u* go back to these **i* and **u* *e g*.

Skt. *distá—*, Lat. *dictus*

Skt. *idam* Lat *idem*, Goth. *ita*.

Skt. *s'unáh*, Gk *kunos*

Skt. *s'rutá*, Gk *klutós*

Skt *yugam*, Lat. *jugum*

(2) Skt *i* and *u* go back sometimes to **y∂* and * respectively. When however, the

treated as vowels before *ə, the resulting *i* and *u* are long in Skt. *e. g.*

*kʷr °yə—, Skt. *krī-ta*.

* kʷryə, Skt. **kri*-ṇā-ti, but the *i* is lengthened on the analogy of forms like *krīta* where the long *ī* is quite regular.

**pwə*, Skt. *pu*—nā-ti.

but **p°wə*, Skt. *pū*-ta'-etc.

Skt. *e* and *o*:—

Sanskrit has *e* and *o* which are always long. These have nothing to do with **e* and **o*, short or long, as we saw the latter confused into one sound in Sanskrit. On the other hand, Sanskrit long *e* and *o* go back, in the first instance, to Indo-Iranian diphthongs **ai* and **au* respectively; these latter represent the original I E. **ei*, **oi*, **ai*, and **eu*, **ou*, **au* respectively as **e* **o*, **a*, become *a* in the Indo-Iranian. Therefore,

Skt. *ē* represents I. E. **ei*, **oi*, or **ai*.

Skt. *ō* represents I. E. **eu*, **ou*, or **au*.

Examples:

Skt. *ēti*, Gk. *eîsi*, Lat. *īt*.
Skt. *vēda*, Gk. (*w*)*oide*, Goth. *wait*, O. Eng. *wit*.
Skt. *ēthas*, Gk. *aithō*, Lat. *aedes*.
Skt. *dēvaḥ*, Lat. *deus* (old **deinos*).
Skt. *bōdhati*, Gk. *peuthetai*.
Skt. *rōcaḥ*, Gk. *leukos*.
Skt. *ōjman*, Lat, *augmen*.
Skt. *jujōṣa*, **g'eg'ouse*. etc.

Skt. *ai* (ऐ) and *au* (औ).

Besides **ei*, **eu*, etc., I. E. seems to have had corresponding diphthongs with the first element long. These **ēi*, **ōi*, **āi* and **ēu*, **ōu*, **āu* became **āi* and **āū* respectively in the Indo-Iranian stage and then *ai* and *au* in Sanskrit. *e. g.*

**ēi*, Skt. *raih*.

**ēu*, Skt. *dyauḥ*.

**ōu*, Vedic *duvau* or *duvā* etc.

43. Vedic Consonants

Dentals and labials in Sanskrit represent the corresponding original dental and labial stops of the I. E. *e. g.*

*t

Skt. *tanuḥ*, Lat. *tenuis*.

Skt. *trayaḥ*, Gk. *treis*, Lat. *trēs*.

Skt. *patāmi*, Gk. *petōmai*, Lat. *petō*.

*d

Skt. *damah*, Gk. *dómos*, Lat. *domus*.

Skt. *pādam*, Gk. *poda*, Lat. *pedem*.

*dh

Skt. *dharsāmi*, Gk. *thársos*, cf. Eng. *dare*.

Skt. *madhu*, cf. Eng. *mead*.

*p

Skt. *pra*, Gk. *pro*, Lat. *pro*.—

Skt. *api*, Gk. *epi*.

*b

Skt. *pibāmi*, Lat. *bibō*.

*bh

Skt. *bharāmi*, Lat. *ferō*; Skt. *nabhaḥ*, Lat. *nebula etc.*

Sanskrit Gutturals and Palatals

These two classes of stops are considered together as Sanskrit shows a peculiar treatment of the original I. E. velars. As mentioned before, I. E. had the velars **kʷ*, **gʷ* and **gʷh*. The -*w*- sound has been preserved in some I. E. languages while in some others they have become pure gutturals. But their treatment in Sanskrit has been affected by the following vowel. Before palatal vowels **kʷ*, **gʷ* and **gʷh* become *c*, *j* and *h* in Sanskrit while in all other cases they become pure gutturals. *e. g.*

**kʷ* > Skt. *k*

Skt. *rōkáh*, Gk. *leukos*, Lat. *l*·

Skt. *katarah*, Gk. *poteros*.

*k^w> Skt. *c*

Skt. *cid*, Lat. *quid*.

Skt. *rirēca*, Gk. *leloipe*.

*g^w> Skt. *g*

Skt. *guru-ḥ*, Gk. *barus*, Lat. *gravis*.

Skt. *gatiḥ*, Gk. *bais*.

*g^w> Skt. *j*

Skt. *jīvah*, Gk. *bīos*.

*g^wh> Skt. *gh*

Skt. *ghnanti*, Gk. *épepho'n*.

Skt. *ghanáh*, Gk. *phonós*.

*g^wh> Skt. *h*

Skt. *hanti*, Gk. *theino*.

Skt. *harmya*, Gk. *thermós* etc.

So far nothing has been said about Sanskrit unvoiced aspirates like *kh*, *ch*, *th* and *ph*, as these sounds are not distinguished from the corresponding un-aspirates in any I. E. languages. As illustrated in Part II, even in Sanskrit, which is alone in this distinction, they are very rare.

44. Sanskrit Nasals

Of the five nasal stops in Sanskrit *m* and *n* go back to I. E. (consonantal) sonants **m* and **n*. *e. g.*

Skt. *nāman*, Lat. *nōmen*. etc.

The other three *viz.*, *ṅ* *ñ* and *ṇ* are mere positional developments of *n*. They never occur at the beginning of a word in Sanskrit. *n* before gutturals becomes *ṅ*, before palatals *ñ* and *ṇ* before cerebrals.

45. Sanskrit Sibilants

Sanskrit has three sibilants *viz.*, *s*, *s'* and *ṣ*. Of these *s'* is the development of the original I. E. palatal stop *k'*. *e. g.*

Skt. *s'vā*, Gk. *kuon*, Lat. *canis*.

Skt. *ves'aḥ*, Gk. *oikos*, Lat. *vīcus*, etc.

Sanskrit *s* and *ṣ* go back to I. E. **s*, the only sibilant in that dialect. After *k*, *r*, *i* and *u* this **s* becomes *ṣ* in Sanskrit. *e. g.*

Skt *trsyatı*, Gk *tersomaı*
Skt *uksan*, Eng. *ox* (*oks)
Skt *snusā*, Gk, *nuos etc*

46. *y*, *v*, *r* and *l* in Sanskrit

y*,w*, **r* and **l*, as sonants, are both vowels and consonants ın the orıgınal I E. dıalect In Sanskrıt, however, *y* and *v* are the descendants of consonantal sonants **y* and **w* e g

Skt. *yakṛt*, Lat. *ıecur*
Skt *madhyah*, Lat. *medıus*
Skt *vıs'*—, Lat. *uıcus*
Skt *sravatı*, Lıth *srava* etc.

Sımılarly I E. **r* becomes *r* ın Sanskrıt whıle **l* becomes eıther *r* or *l* (In Vedıc, however, **l*>*r* alone as Vedıc ıs a *r* dıalect whıle Classıcal Sanskrıt ıs an *l* dıalect). e g

Skt *rudhırá*—, Lat. *ruber*, Gk, *eruthros*
Vedıc *rehmı* (Clas *lehmı*), Lat *lınquo*, Gk *leıgō etc*

47 Cerebrals

Thus we fınd that though sounds have undergone change owıng to posıtıon, accent etc, the capacıty of the Indo Europeans ın pronuncıatıon was lımıted ınasmuch as the same sound system has been preserved. It ıs more owıng to thıs fact that the presence of a new class of sounds—the cerebrals—ın Sanskrıt ıs not only surprısıng but extremely ınterestıng " The oldest form of Indo Aryan, the language of the Rıgveda, ıs dıstınguıshed from the oldest form of Irānıan, the language of the Avesta chıefly by the presence of a second serıes of dental letters, the so called cerebrals These play an ıncreasıngly ımportant part ın the development of Indo-Aryan ın ıts subsequent phases They are foreıgn to Indo European language generally, and ' . terıstıc of Dravıdıan We may ' '

earlier forms of speech, by which Indo-European was modified in the various stages of its progress from the North-West were predominantly Dravidian."[1] An explanation was suggested above (Section 29) that in Sanskrit cerebrals were not new or imported as they appeared only in certain positions. But when we find that these cerebrals "play an increasingly important part in the development of Indo-Aryan in its subsequent phases," the above explanation seems to us only a partial, though not an improbable, one. Where, for example, could be found an explanation for the fact that as we come down from Sanskrit to the various Prākṛts as well as to the modern Indo-Aryan Vernaculars the cerebrals not only become more frequent *but occur in all positions*? The Dravidian "Substratum-Theory" appears more reasonable as the various Prākṛts essentially represent forms of dialects spoken at one time. The tongue of the non-Aryans must have had as it does have even to-day, these cerebral sounds with more frequency and freedom. Perhaps the Vedic Aryans were conscious of this fact when they referred to the Dasyus as "mṛdhra-vācaḥ" *i.e.* speaking harsh or broken words. But they could no more prevent the intrusion of these "hard" sounds into their own spoken dialects. The waves of the interflow of thought, art, and business between Aryans and non-Aryans rushed fast and strong, and King Canute stood mere watching. There is nothing strange in such a phenomenon. The modern speakers of Dravidian dialects use and utilise the aspirated stops under the influence of Sanskrit, though the pure (*i.e.* original) Dravidian has not a single aspirated stop in its phonology. Similarly, modern Indians import without an inconvenience or hesitation the sound *f* under the influence of English, in the place of genuine *ph*.

1. C. H. I. Vol. I. p. 49.

Pāli and Prakṛt Sound-System

48 Vowels

From Vedic to Pali and Prākṛt stage speaking broadly, the vowel changes cannot be said to be sudden or startling Most of them are understandable from the point of view of a speaker s convenience Vowels by themselves such as we have seen in Sanskrit offer no difficulty for pronunciation Some times however we meet with changes due to the position of the vowel or the place of the accent in the body of a word The two vowels ṛ ḷ are universally abandoned in this stage. Even now we are not sure of the exact way in which ṛ and ḷ were pronounced in Sanskrit. That there were more than one ways can be safely asserted from the different developments of ṛ and ḷ

It would be better if we keep before us a passage in illustration as we are dealing with the vowel system (and the sound system in general) of Pali and the Prakṛts The following is Rock Edict III (Girnār version) of King Asoka [1]

देवानाँ पियो पियदस्सी राजा एव्वमाह। द्वादसवासाभिसित्तेन मया इद आञ्ञापितँ सव्वत्त विजिते नम युत्ता च राजुके च प्रादेसिके च पचसु पचसु वासेसु अनुसयान निय्यातु एतायेव आथाय इमाय धम्मानुसस्टिय यथा अञ्ञाय पि कम्माय। मातरि पितरि च सुस्रूसा मित्तासस्तुतजातीन ब्राह्मणसमणान साधु दान प्राणाना साधु अनारभो अपव्ययता अपभाण्डता साधु परिसा पि युत्ते आञपयिस्मति गणनाय हेतुतो व्यंञ्जनतो च।

Translation :—

King Piyadasi the Beloved unto Gods, says thus "Twelve years have passed since I was crowned All over I have conquered and now commanded Land Measurers, Revenue Officers and judges[2] to go on tour every five years for this purpose *viz* to give instruction in Dhamma as

1 From *Dr Wolner s* edition

2 These words have been interpreted according to Prof. D R Bhandarkar in his "Asoka"

well as for other purposes. Attendance on (one's) mother and father is good as well as on friends, acquaintances and relations ; gifts unto Brahmins and Mendicants is good; it is good not to injure living beings ; and good as well is economy in expense and furniture ; and the Council will command the Revenue Officers to levy (taxes ?) according to the spirit and the letter (of this command)."

In the first place, the vowel-system, on the whole, appears to be nearly the same, *viz.*, *a*, *i*, *u* (short or long), *e* and *o*. Though such be the case, we might notice that everywhere these vowels are not the direct developments of earlier corresponding Sanskrit vowels.

Short Vowels

(1) In Pāli and the Prākṛts, Sanskrit *a*, *i* and *u* are retained as short vowels. *e. g.*

Skt. *vadhūḥ*,	Pāli. *vadhū*,	Pkt. *vahū*.
Skt. *agni* –,	Pāli. and Pkt. *aggi*.	
Skt. *artha* –,	Pāli. and Pkt. *aṭṭha*.	
Skt. *priya* –,	Pāli. and Pkt. *piya*.	
Skt. *rukṣa* – a tree,	Pāli. and	Pkt. *rukkho*.
Skt. *mukham*,	Pāli. *mukhaṁ*,	Pkt. *muhaṁ* etc

(2) In Pāli and the Prākṛts Sanskrit vowels in a close syllable (*i. e.* in front of a consonantal group), if originally long, become short. *e.g.*

Skt. *vānta*,	Pāli. *vanta*.
Skt. *kāṣṭha*,	Pkt. *kaṭṭha*.
Skt. *des'āntare*,	Pkt. *desantare*.
Skt. *kāntāra*,	Pāli. *kanṭāra*.
Skt. *mātram*,	Pāli. *mattam*.

In this connexion mention should be made that Pāli and the Prākṛts have developed two short vowels new to Sanskrit, short *ĕ* and short *ŏ*. In Sanskrit *e* and *o* are always long. But the tendency of shortening long vowels in close syllables has affected these two Sanskrit vowels with the result that there

are short ĕ and short ŏ in Pāli and the Prākṛts Like Skt *e* and *o* Sanskrit *ai* and *au* and *aya* and *ava* (which become *e* and *o* respectively in these languages) have undergone the same development under similar circumstances Further we find this tendency affecting cases where the long vowel is followed only by a single consonant, in this latter instance, though the long vowel is shortened the following consonant is doubled to retain the quantity of the syllable *e g*

Skt *ēka*,	Pali and Pkt *ĕkka*.
Skt *ēvam*,	Pāli *ĕvvam*, Pkt *jĕvvam*
Skt *maitra* –,	Pali *mĕtta*,
Skt *avakram*–,	Pāli *ŏkkam*
Skt *s ayyā*	Pali and Pkt *sĕjja*
Skt *ās carya*,	Pkt *acchera*
Skt *pinda*,	Pkt *pĕnda*
Skt *nidrā*,	Pkt *nĕddā etc*

Sometimes ē and ō are shortened to *i* and *u* respectively. *e g* Skt *prāmōda*, Pāli *pāmujja*

(3) In the final position original long vowels are usually shortened *e g* in the passage from the Asokan [illegible]

[illegible]evānām

ananāyām.

Similarly unaccented long vowels are shortened, *e g* in the same passage we have *nama*, Skt. *n[illegible]*, "indeed"

(4) In Pali sometimes we meet with cases where an original long vowel followed by a consonantal group is shortened due to *svarabhakti e g*

Skt *tiksna*	Pali *tik[illegible]*
Skt *dvāram*,	Pāli *d[illegible]*
Skt *stri*,	Pāli *itth[illegible]*
Skt *klanta* –,	Pāli and Pkt *[illegible]*

(5) Skt *r* is represented by [illegible]

change is old enough and we observe it [illegible]

veda Thus a word like *[illegible]* was [illegible]

vikaṭa is side by side with *vikṛta*. Yāska, who has observed this phenomenon, gives instances like (1) *kuṭasya* and *kṛtasya* (V-24), (2) derives *iṣira* from the root *ṛṣ* (IV-7) and (3) explains the word *sus'ipra* from *sṛpra* (*sṛpra-s'abdena vyākhyātam.* VI-17).

In later times we can detect two tendencies developing into two distinct groups. In the first group *ṛ* is changed to *a* and in the second to *i* or *u*. To the first group belong Pāli (generally), the Girnār Inscriptions of Asoka and the Mahārāṣṭri and Ardha-Māgadhi Prākṛts. *e. g.*

Skt. *kṛta*,	Pāli. *kata*.
Skt. *mṛta*,	Pāli. *mata*.
Skt. *mṛgo*,	Gir. Inscrip. *maga*.
Skt. *dṛḍha*,	Gir. Inscrip. *daḍha*.
Skt. *hṛdaya*,	M. Pkt. *haa*, A.M. *haḍakka. etc.*

To the second group belong the Asokan Inscriptions of the East and North-West and the Śauraseni and Māgadh Prākṛts. *e. g.*

Skt. *kṛta*,	(Asokan) *kita*, Śaur. *kida*.
Skt. *mṛta*,	(Asokan) *mita*, Śaur. *muda*.
Skt. *sṛgāla*,	Mgd. *s'iāla*. *etc.*

Long Vowels

Except when standing at the end of a word or in a close or unaccented syllable, Sanskrit long vowels are retained in Pāli and the Prākṛts. *e. g.*

Skt. *kāla*,	Pāli and Pkt. *kāla*.
Skt. *mātā*,	Pāli and Pkt. *mātā*.
Skt. *prahīna*,	Pāli. *pahīna*.
Skt. *kṣīram*,	Pāli and Pkt. *khīram*.
Skt. *mūla*,	Pāli and Pkt. *mūla* or *mūḷa*.
Skt. *vadhū* (see above).	

Sometimes Skt. long *ī* is represented by short *i*. The reason seems to be that the difference between *i* and *ī* is not the same as between *a* and *ā*, the quantity of long *ī* not being

as much as that of long *a* e g Skt *kitakam* Pkt *kida(k)a* Skt. *pāniya* Pkt. *pīnia* etc Skt. long *e* and long *o* (with the exceptions mentioned above) are retained e g

Skt *des a*	Pāli and Pkt *desa*
Skt. *deva*	Pali and Pkt. *devo*
Skt *ghotaka*	Pāli *ghotaka* Pkt *ghoda(k)a*

etc

It was shown above that in these dialects *i* and *u* represented the short forms of long *e* and long *o* The converse holds true as well *e* and *o* are the long forms of *i* and *u* respectively e g

Skt. *nida*	Pkt. *neḍam*
Skt *kidrs a*,	Pkt *kerisa*
Skt. *tunda*	Pkt. *tonda*
Skt *puskara*	Pkt. *pokkhara*.. etc.

In Pali and the Prakrits long *e* and *o* go back to Skt diphthongs *ai* (and also *aya*) and *au* (and also *ava*) respectively e g

Skt *tailam*	Pkt *tellam*
Skt *pautra*	Pkt *potta*
Skt. *sauvarna*,	Pkt *so(v)anna*
Skt *paralaukika*,	(Gir Inscrip) *para lokika*
Skt *vart aya* –	Pali and Pkt *vattedi*
Skt (*pari*) *ava data*	Pali *pariyōdata* etc.

Visarga

By the time of Pali *visarga* has disappeared altogether and is not to be found in the Prakrits either In the body of a word it is assimilated to the following stop while at the end of a word it is generalised to *o* (short or long) on the analogy of cases where final visarga in Sanskrit becomes *o* before *a* or voiced stops. e g

Skt. *duhkham*	Pali and Pkt. *dukkham*
Skt. *punah*	Pāli and Pkt. *puno*
Skt. *devah*	Pāli and Pkt. *-*

49. Vowel-Combinations

In Sanskrit no two vowels come together without being combined. This, however, seems to be a later rule of grammar and it is doubtful if it represents an original state of affairs. In Rigveda, for example, instances can be found where not only the final vowel of a word is not combined with the initial vowel of the following word but even in compounded forms (which are, as the accents would show, only one word) vowels come together without being combined. Thus,

Indrāvaruṇā mádē asya māyí'naḥ (VII-82.3);
asmākam Indrā-varuṇa bhárē-bharē
pārōyōdhā bhavatam kṛṣṭyōjasā (VII 82, 9).

where for the metre *kṛṣṭyōjasā* should be read as *kṛṣṭi-ōjasā;* or,

á vō 'rvācaḥ krátavō ná yātām (VII-48.1).

where again for the metre the two words *vo* and *arvācaḥ* must be read separately. In Bhagavad-gītā, for example, we read *buddhiyuktō jahātīha ubhē sukṛta-duṣkṛte* (II-50) where *jahātīha* and *ubha* are not combined. These are instances at a glance, but a regular study might reveal many more frequent cases of the kind. Such a circumstance is impossible in Classical Sanskrit where there are regular rules governing the compulsory combination of the vowels. Even in the body of a word, as in a compounded form, there was a vowel *samdhi*. In later works the artificiality of such a process is revealed by combinations resulting in sounds hard to pronounce. In Pāli and the Prākṛts, on the other hand, final vowels of a word do not combine, as a rule, with the initial vowel of the following word. Thus in Girnār Rock Edict I we have,

से अज्ज यदा अयं धम्मलिपी लिखिता ती एव प्राणा आरभिरे :

or to take a Prākṛt passage,

ता जाव अय्यउत्तो ण आअच्छेदि दाव इमाणं वाळरुक्खाणं उदअप्पदाणेण अणुक्कोसइस्सं (*Pratimā-Nāṭaka* of Bhāsa, Act V). But within the body of a word, though we find instances to the contrary in

the Prākṛt passage quoted above vowels coming together were sometimes combined What Bhāmaha says in case of consonants only can be applied as a general rule. The combination or otherwise is governed not by any *rule* except the convenience of the speaker (cf प्रायोपदणायत्र श्रुतिसुखमस्ति तत्र स भवत्येव। *PrākrtaPrakās'a* II 2.) In case there is a combination, two similar vowels usually give a long vowel e g

Pkt *andhāra*, Skt *andhakāra* where -*k*- is eluded.
Pkt. *sulahavarāho*, Skt *sulabha* + *aparādha*

All these combinations happen only in the interior of a word where as the intervocalic stops disappear, two vowels come together When dissimilar vowels come together *a*+*i*>*e*, *a*+*u*>*o* *a*+*ū*<*ū* *r*+*a*>*ri* and so on *e g*

Pkt. *sejja*,	Skt. *s'ayyā* (=s'aiyyā)
Pkt *acchēra*,	Skt. *as carya*>**acchariya*.
Pkt *sundera*	Skt *saundarya*
Pkt. *peranta*,	Skt. *paryanta*
Pkt *cotthi*	Skt. *caturthi*
Pkt *mōra*	Skt *mayūra*
Pkt *loṇa*	Skt *lavana*
Pkt. *mahūssava*	Skt. *maha*+*utsava* *etc*

Consonants

50. General Features

The ancient Indian grammarians generally held that consonants were dependent on vowels In a sense this is true. The explosion of the consonant is more audible and stronger before a vowel The vocalic basis of the syllable too maintained by Indian grammarians[1] reveals the comparative weakness of consonants This factor has affected to a great extent the development of old Sanskrit consonants. This development is three fold and it mainly depends on the position of the consonant in the sound groups Generally speaking

1 Dr Varma *Phonetic Observations of Indian Grammarians*, p 56

51. Initial Stops

(1) Generally speaking Sanskrit initial single consonants are retained in Pāli and the Prākṛts. Thus Sanskrit *k*–, *g*–, *c*– *j*–, *t*–, *d*–, *p*– and *b*– remain *e. g.*

Skt. *karoti*, Pāli *karoti*, Pkt *karedi*
Skt. *kāla*–"time", Asokan *kālam*
Skt. *kāmam*, adv "at will", Asokan *kāmam*
Skt. *kōkila*, Pkt. *ko(y)ila*
Skt. *gacchati*, Pāli *gacchati*. Pkt. *gacchedi*
Skt *galah*, Pāli and Pkt. *galo*
Skt *geha*, Pāli and Pkt *geha*.
Skt *gananā*, cf "Asokan' *gananāyam* above
Skt. *cōra*–, Pāli and Pkt *cōrō*
Skt *calati*, Pāli *calati*, Pkt *caledi*
Skt *jāmātā*, Pāli and Pkt. *jamādā*
Skt *janah*, Pāli *janō*, Pkt *jano*
Skt *pañca*, Pāli and Pkt *pañca*
Skt. *putrah*, Pāli and Pkt *puttō*
Skt *tādayati*, Pali and Pkt *tādedi*
Skt *dantah*, Pāli and Pkt. *dantō*
Skt. *bahu*, Pāli and Pkt *bahu (ka)*.
Skt. *badhira*, Pāli and Pkt *bahirō*, etc

(2) As for the aspirates it has been mentioned above that even in Sanskrit they are not frequent Initially they are retained *e g*

Skt. *khanati*, Pāli *khanati*, Pkt *khanai*.
Skt. *ghata*–, Pāli *ghato*, Pkt *ghado*,
Skt *chardayati*, Pāli *chadaeti*, Pkt. *chaddeti*
Skt. *phalam*, Pāli and Pkt. *phalam* etc

Besides the original initial aspirates Pāli and the Prākṛts have initial aspirates where Sanskrit has either a consonantal group beginning with a sibilant or has an initial *ks* Initial consonantal groups are generally assimilated to one sound. When, however, a sibilant is a member of ... other sound, if an un aspirate, is ...

assimilated to the latter. In Pāli and the Prākṛts the assimilation is complete. But in some of the Asokan Inscriptions, as in the Girnār version, the group sibilant + stop remains. *e. g.*

Skt. *skambhaḥ*,	Pāli and Pkt. *khambhō.*
Vedic *spas'*-.	Pāli and Pkt. *phas*-(-*s'*-).
Skt. *sthāpayati*,	Pāli and Pkt. *ṭhāpedi.*
Skt. *stūpah*,	Pāli. *thūpo*, Asokan. *thube.*
Skt. *sthita*,	Pāli and Pkt. *ṭhido.*

Sanskrit initial *kṣ*- gives an initial aspirate. But here the development is two-fold. In Pāli and S'auraseni Prākṛt Skt. *kṣ*- becomes *kh*- while in Maharāṣṭrī Prākṛt it becomes *ch*-. *e.g.*

Skt. *kṣīra*,	Pāli. *khīra.*
Skt. *kṣētra*,	Pāli *khetta*, but cf. Mod. Mar. *s'et.*

There are some instances where Pāli or the Prākṛts do not appear to retain an initial aspirate. For example the Skt. word *bhaginī* appears as *bahin*(or --*ṇ*)-*ī*. But this is only an apparent exception. Even in Sanskrit, by the side of *bhaginī*, there must have been a form like **baghinī.* Both would go back to an original form **bhaghinī* but as Sanskrit usually does not retain more than one aspirate in the body of one and the same word, from **bhaghinī* there are two possible forms (1) *bhaginī* and (2) **baghinī*; it is quite clear that the Pkt. *bahinī* claims descent from the latter. Thus the general rule that the initial aspirates are retained does not appear to have been violated in the Pāli and Prākṛt stage.

(3) There are, however, some instances where the peculiar position has affected this general rule. In discussing the Sanskrit phonology we saw how a following vowel could affect a velar sound. The same phenomenon obtains sometimes in Pāli and the Prākṛts; an original guttural followed by a palatal vowel is itself palatalised. *e. g.*

Skt. *tiṣṭh*,	Pāli and Pkt. *ciṭṭha.*
Skt. *kirāta*,	M. Pkt. *cilāa.* etc.

(4) There are also some enclitic words. A word, for example, like Skt. *tāvad* becomes *dāva* in Prākrit; agair

Skt. *bhavati* becomes *hodi* in Prakrt, Skt. *api*>Pkt *vi* and similarly Skt *khalu*, adv 'indeed' becomes *kkhu* in Pali and the Prākrts They are not so much exceptions to the general rule as regular developments of irregular conditions These are the oft used words and, as said in Part I, the more a word is used the less powerful it gets i e the speaker is not as particular or as careful in pronouncing these as in other words

(5) Of the five nasal stops *n*, *ñ* and *n* do not at all appear initially in Sanskrit They are not independent as *n* and *m* which latter occur in all positions Initially they are retained like other stops Only in literary Prākrts and Jain works initial *n*- occurs as *n*- initial *m*-, however is unchanged e g

Skt. *ni pat*-,	Pāli *ni pan na*
Skt *nāśayati*,	Pali *nāseti*, Pkt. *nāsei*
Skt *nūpura*-,	Pkt *neura*
Skt. *mukha* -,	Pali and Pkt. *mukha* or *muha*
Skt. *mantrayati*,	Pāli *mantreti*, Pkt *mantedi* etc

(6) Just as initial *n*- appears as *n*- in literary Prakrts, initial *t*- and *d*- appear cerebralised occasionally even as early as in Pāli Thus Skt. *daśati* becomes *dasati* in Pāli, Skt *dahati* is both *dahati* and *dahati* In the Prākrts too, cerebralisation in the case of initial *t* and *d* becomes more frequent It has been suggested as an explanation for such sporadic cases of cerebralisation that in the Pre-Sanskrit there was a tendency for back sounds. Or secondly, such words might have been borrowed from dialects where cerebralisation was usual, or the tendency to cerebralise itself might have been influenced by the Dravidian languages

(7) Like the stops the semi vowels *y*, *v*, *r* and *l* are also as a rule, maintained initially In the case of initial *y*- and *v*-, however, some peculiarity should be observed This peculiarity was noticed by the Prātis'-¹¹,
Dr Varma quotes from Yajñavalkya Siksā,

Skt. *krāmyati*, Pāli. *kāmeti*, Pkt. *kāmedi*.
Skt. *trīṇi*, Pkt. *tinṇi*.
Skt. *grāma-*, Pāli and Pkt. *gāma*.
Skt. *drakṣyati*, Pkt. *dekkadi*, etc.

Sometimes the consonantal group is simplified by means o *svarabhakti*. *e. g.*

Skt. *kles'a*, Pāli and Pkt. *kileso*.
Skt. *klānta-*, Pāli. *kilanto*.
Skt. *dvāram*, Pāli. *duāḷam*, etc.

Sometimes when *y* is the second member, in a group like *ky* and more especially in *ty-*, *dy-*, *dhy-*, the following *y* palatalises the preceding stop. *e.g.*

Skt. *tyajati*, Pkt. (c)*cajedi*
Skt. *dhyā*, Asokan. *jhāpayitaviye* 'to be burnt' etc.

Similarly the group *dental+v* has a two-fold development, one, where *v* is assimilated to the dental, and the other where the dental, assimilated to *v*, gives a labial. In the Girnār Inscriptions of Asoka the group *dental* + *v* changes to *dental* + a corresponding *labial*. *e. g.*

Skt. *dvādas'a*, Girnār. *dbādasa*.

Lastly might be noted the group *stop+nasal* where the stop is assimilated to the latter. *e. g.*

Skt. *jñāti* ; Pāli, Asokan and Pkt. *ñāti*.

The group *kṣ* has been noted above.

(b) In the group *sibilant+stop* it has been already suggested that the sibilant is assimilated to the stop and that the latter, in the meanwhile, if an un-aspirate, is aspirated. The group *sibilant+nasal* is usually simplified by *svarabhakti*. *e. g.*

Skt. *snēha*, Pkt. *sineho*.
Skt. *snuṣā*, Pāli. *suṇisā*.
Skt. *smarati*, Pkt. *sumaredi*, etc.

Otherwise in such groups the sibilant is usually assimilated to the following sound. *e. g.*

Skt. *sva-*, cf. Pāli. *santako-* "one's own."
Skt. *s'ravanīya*, Pāli. *savanīya*.

Skt *s loka-*,	Pāli *soko*
Skt *s ramanaka*,	Asokan *samana*
Skt. *s ru*,	Pkt *sunedi* etc

52. Inter-vocalic Stops

(1) The story of these intervocalic stops was briefly and broadly narrated in the last section Though they are weaker than the initial stops and the tendency for them is to get weaker and weaker, in Pāli and the Asokan dialects, they are still retained It is in the Prākrts, however that this tendency is carried through its various stages to the ultimate end Mahārāṣṭri Prākrt represents the last stage where all inter vocalic stops have disappeared In other Prākṛts the unvoiced stops are only voiced Thus *-k-*, *-t-* and *-p-* become *-g-*, *-d-* and *-b-* respectively *e g*

Skt. *kōkila*,	Pkt *kōgila* and *koila*
Skt *sūcī*,	Pāli *sūcī*, Pkt *sūī*
Skt *āgata-*,	Pāli *āgato*, Pkt *āgado* and *āao*
Skt. *mati*,	Pāli *mati*, Pkt. *madi* and *mai*
Skt. *pipāsā*,	Pāli *pipāsā*, Pkt *pivāsā*
Skt. *prāpayati*,	Pāli *pāpeti*, Pkt *pāvedi*

It should be noted that an intervocalic *-p-* is first voiced and then this *-b-* is further weakened to *-v-*

(2) Intervocalic voiced stops too are retained in Pāli and the Asokan dialects, while the Prākrts represent them in all their stages. Before a voiced stop disappeared it passed through a stage where it was a weak *y*, noted by the grammarian Hemacandra, as the *laghu-prayatna-tara-yakāra*, *e g*.

Skt *s'ata-*,	Pkt *sada*, *saya* and *saa*
Skt. *yugam*,	Pkt *juam*
Skt *rāja*,	Pkt *rāā*
Skt *bijam*,	Pkt *biyam*, *bīam*
Skt *parimita*,	Pāli *parimata*
Skt *khīda-*,	Asokan *khādiyati* "is
Skt. *nagara-*,	Asokan *nagala*

In the cerebral series though the unvoiced are voiced in-between vowels, they are rarely dropped. *e. g.*

Skt. *kaṭu – ka*, Pāli. *kaṭuka*, Pkt. *kaḍua*.
Skt. *s'akaṭika*, Pkt. *sagaḍia*. *etc.*

The intervocalic *–ḍ–* is represented in certain cases by *–ḷ–* in Pāli while it is retained as *–ḍ–* in the Prākṛts. This difference appears to go back to the Vedic dialect which is a *ḷ–* dialect, *i. e.* where for *ḍ* and *ḍh* we have *ḷ* and *ḷha*. *e. g.*

Skt. *pīḍayati*, Pkt. *pīḍeti;* but Pāli. *pīḷeti*, cf. Vedic *pipīḷe*
Skt. *nīḍa*, Vedic. *nīḷa–*, Pāli. *nīḷa*
Skt. *dṛḍha*, Pkt. *daḍha:* Vedic. *dṛḷha*, Pāli. *duḷho* etc.

(3) The intervocalic aspirates, both voiced and unvoiced, while retained by Pāli have lost entirely their occlusion in all the Prākṛts and are changed to simple *–h–*. *e. g.*

Skt. *mukha–*, Pāli. *mukha–*, Pkt. *muha–*,
Skt. *likhati–*, Pāli. *likhati*, Pkt. *lihadi*.
Skt. *megha–*, Pāli. *mēgho*, Pkt. *mēho*.
Skt. *làbhate*, Pāli. *labhadi*, Pkt. *lāhai*. etc.

The cerebral *–ṭh–* and *–ḍh–*, however, both remain as *–ḍh–*. There are some instances where Skt. intervocalic *–th–* is cerebralised to *–ḍh–* as in

Skt. *prathama–*, Pkt. *paḍhamo*.
Skt. *s'ithila–*, Pkt. *saḍhilo*. etc.

In the first instance, as we shall see in connexion with the group *r* + *dental*, the cerebralisation is not hard to understand. For the second and similar cases it has been suggested that originally by the side of a word like *s'ithila* there must have been a form like **s'ṛthila* from a root like *s'rath–* and that the influence of *ṛ* tended to cerebralise the dental. This explains many cases of sporadic cerebralisation.

(4) Of the five nasals *ṅ*, *ñ* offer no difficulty as they have been already shown not to be independent sounds. They appear only before guttural and palatal stops respective-

ly Intervocalic *-m-* and *-n-* are usually retained in Pāli and the Prākṛts *e. g*

Skt. *grāma-*,	Pali and Pkt. *gāmō*
Skt. *hima-*,	Pali and Pkt *himo*
Skt. *kāmam* adv "at will", Asokan *kāmam*	
Skt *purāna-*,	Pāli and Pkt *purāno*
Skt *kāna-*,	Pāli and Pkt. *kāno*

Intervocalic *-n-*, however, is changed to *-ṇ-* in practically all the Prākṛts But in Pāli and the Asokan dialects it is retained unchanged *e g*

Skt *dhanam*,	Pāli *dhanam* Pkt *dhaṇam*
Skt *manusya*,	Pāli and Asokan *manusa*
Skt *janah*,	Pāli and Asokan, *janō*, Pkt *jaṇō*
Skt *ānayati*,	Pali *aneti*, Pkt *āṇei* etc

(5) *Semi-vowels*

Intervocalic *-y-*, *-r-*, *-l-*, and *-v-* are retained in Pali and the Asokan dialects. In the Prakṛts *-l-* changes to *-ḷ-* where *-n-* changes to *-ṇ-*. In the case of *-r-* those dialects like the Magadhi which change *r-* to *l-* change the inter vocalic *-r-* sometimes to *-l-* In- between vowels *-y-* and *-v-* were shown to be weaker sounds. This fact is illustrated by the Prākṛts which entirely drop out *-y-* and *-v-* In some cases even in the Prākṛts if *-y-* and *-v-* occur in an accented syllable it appears that they are strengthened as occlusives- *-j-* and *-b-* respectively Sometimes intervocalic *-v-* passes through the stage of *laghu prayatna tara-ya kāra*. *e g*

Skt. *āyukta*,	Pkt. *āutto*
Skt. *priyakāra-*,	Pkt. *piaāra*
Skt. *dayā*,	Pāli and Asokan *daya*
Skt *divasa-*,	Pali *divaso*, Pkt. *di(y)aso*
Skt *dēvah*,	Pāli *devō*, Pkt. *deū*
Skt. *vālukā*,	Pkt *vāluā*
Skt *phalam*,	Pāli *phalam*, Pkt. *phaḷam*
Skt. *dvāram*,	Mgd. Pkt *duāḷam*,
Skt *girati*,	Pkt. *giledi*

But Skt. *dīyate*, M. Pkt. *dijjai*.
Skt. *kalevara-*, Pkt. *kaḷebara*. etc.

In the root-suffix *-aya-* of Sanskrit in Pāli as well as in the Prākṛts the *-y-* is lost but the resulting vowel is palatalised. By analogy this change is carried to the *-y-* which belonged to the genuine root as in the case of Skt. *nī-*. Thus,

Skt. *dāp-aya-ti*, Pāli. *dāpeti*, Pkt. *dāpe(d)i*.
Skt. *nay-a-ti*, Pāli. *(ā)neti*, Pkt. *(ā) ṇe(d)i*. etc.

(6) *Sibilants :*

The intervocalic *-ṣ-*, *-s'-* and *-s-* are not distinguished in Pāli and the Prākṛts from initial *ṣ-*, *s'-*, and *s-*; *i. e.* their treatment is not different from when they are initial. Thus, in the first place, an intervocalic sibilant is retained. In Pāli and the Western Prākṛts all the three are reduced to one dental *S*, in Asokan inscriptions of the east there is only one *s* while those at Girnār have *s'* and *s*, the eastern Prākṛts have only *s'* and in the north-west all the three are distinguished. *e. g.*

Skt. deśaḥ, Pāli and Pkt. dēso.
Skt. īṣadīṣat, Pkt. īsīsi.
Skt. divasaḥ, Pāli. divaso, Pkt. di(y)aso. etc.

Consonantal Groups

(7) *Double Consonants*

As regards the Sanskrit intervocalic double consonants two varieties can be distinguished, (1) the original double consonants and (2) consonants doubled due to *saṃdhi* or other external factors. Thus the difference between the double consonant in a word like Skt. *kukkuṭaḥ* and that in a word like Skt. *datta-*, should be noted. In the second example the double *-tt-* is due to the external suffix *-ta-*.[1] This distinction seems to have affected in many cases the development of double sounds. Thus the view of the *Vājasaneyī Prātis'ākhya* that intervocalic double consonants should be pronounced as

1. *Dr. Varma. op. cit.* see chap. V on Doubling.

single cannot be accepted without questioning, it seems to contain partial truth When dealing with the intervocalic double consonants and their development in the modern Indo-Aryan languages we shall point out instances which appear to show that intervocalic original double consonants (and only those) were pronounced as single consonants

As for the nature of the double consonants it was suggested in Part II that they were only long consonants. It is for this reason that the development of the intervocalic double consonants has influenced, and has been influenced by, the quantity of the syllable After a long vowel usually they are shortened But even in Sanskrit double consonants following a long vowel are *very rare* After a short vowel their treatment is two fold, either they are retained as in Pāli and most of the Prākṛts or they are shortened and the previous vowel lengthened to retain the quantity On the other hand, in the Prākṛts we find another tendency where an intervocalic double consonant is retained but the preceding vowel if long is shortened *e g*

Skt *ājñāpayati*,	Pkt *ānevedi* and *aṇṇāvedi*
Skt *kukkuṭah*,	Pāli *kukkuto*, Pkt *kukkudo*
Skt *prcchati*,	Pāli *pucchati*, Pkt. *pucch—*
Skt. *s uddha—*,	Pāli. *suddho—*
Skt. *bhinna—*,	Pāli and Pkt *bhinno* etc

(8) *Stop + Stop*

In the case of other conjunct consonants the process is more easy to understand In a group like *kt*, for example, the two stops *k* and *t* differ in that the former is not at all exploded. The unexploded stops are hard to distinguish from one another as the manner of explosion alone decides the nature of the stop When a speaker, therefore, passes from an unexploded *k* to an exploded *t*, the explosion takes place, even in the case of *k*, in the very place where *t* alone is exploded. The result is the unexploded *k* is carried nearer to *t* to facilitate the explo-

sion. Thus in all such cases the exploded stop always assimilates the unexploded one. In Pāli and the Prākṛts this is a general rule. In the group *stop + stop*, the second stop which is exploded assimilates the first. *e. g.*

Skt. *ukta*,	Pāli and Pkt. *utta*.
Skt. *mukta*,	Pāli and Pkt. *mutta*.
Skt, *sapta*,	Pāli and Pkt. *satta*.
Skt. *s'abda-*,	Pāli and Pkt. *saddo*.
Skt. *matkuṇa-*,	Pāli and Pkt. *makkuṇa*.
Skt. *labdha*,	Pāli and Pkt. *laddho*.
Skt. *utpadyate*,	Pkt. *uppajjai*.
Skt. *udbhar-*,	Pkt. *ubbhar-*, Pāli. *ubbhar*. etc.

(9) *Stop + Nasal*

Normally the nasal is assimilated to the stop as explosion is more audible in the case of a stop than in a nasal. But where a nasal follows a voiced stop which is produced in the same place as the former, the stop is assimilated to the nasal. *e. g.*

Skt. *lag-na-*,	Pāli and Pkt.. *lagga*.
Skt. *agniḥ*,	Pāli and Pkt. *aggi*.
Skt. *s'aknoti*,	Pkt. *sakkedi*. etc.
but Skt. *vijñāpayati*,	Pkt. *viṇṇavedi*.
Skt. *vijñānam*,	Pāli. *viññānam*.

**ad-na* (p. p. of √ad.) Skt. *anna*. etc.

In the group *dental stop + the labial nasal* the development is two-fold. In one group a double dental is the result while in the other a double labial (corresponding to the dental stop) results. *e. g.*

Skt. *ātmā*,	Pkt. *attā* or *appā*.

Similarly *-dm-* becomes either *-dd-* or *-bb-*.

(10) *Nasal + Stop*

In Pāli this group remains unchanged. In the Prākṛts, on the other hand, two different developments can be distinguished. In the group *nasal + unvoiced* stop the latter is voiced;

and in the group *nasal + voiced* stop, the latter is assimilated to the nasal. But even in the Prākṛts only the mere beginnings of these two tendencies are visible. The cases where the group *nasal + stop* remains unchanged far outnumber those where any change is effected, *e. g.*

Skt. *kunta-* "a spear,"	Pāli *kunta.*
Skt *klānta-,*	Pāli. *kilanta.*
Skt. *pinda-,*	Pāli. *pinda.*
Skt. *antah-pura,*	Pkt *ante(v)ura* or *ande-(v)ura.*
Skt *pañca,*	Pāli and Pkt. *pañca*
Skt *s'rānta,*	Pkt. *santa.* etc.

In a group of conjunct consonants where a nasal is the first member only one case is to be noted *viz.* the group *m + r.* Though in *nasal + semi vowel* the latter is assimilated generally to the former the group *m + r* has a peculiar development in the Prākṛts, *viz* the *m* is slightly exploded with the result that a *b* is inserted between *m* and *r.* Lastly as the Prākṛts show no favour to groups of consonants with more than two members the *r* in *-mbr-* is lost. *e. g*

Skt. *tāmra,*	Pkt. *tamba.*
Skt *kamra,*	Pkt. *kamba.*
Skt *āmra·*	Pkt. (M) *amba.* etc.
Skt *tāmraparnī,*	Asokan. *tambapani.*

(11) *Stop + Semi-Vowel* (*or Sibilants*)

From the foregoing it must have been noticed that the development of conjunct consonants depends on the degree of the plosion of the various members. Where the plosion is on the same level or in an ascending order the second member assimilates the preceding. Where, on the other hand, the plosion is in descending order, the following sound is assimilated to the preceding. Thus in the group *stop + semi-vowel* the latter is usually assimilated to the former. *e. g.*

Skt. *putrah,*	Pāli and Pkt. *putto*
Skt. *viplavah,*	Pkt *vippavo.*

Skt. *anya*, Pkt. *anna* or *aṇṇa*.
Skt. *agra*, Pāli. *agga*. etc.

In this group, however, two cases should be noted as peculiar *viz*. the groups *t* + *y* and *t* + *v*, or rather *dental* + *y* and *dental* + *v*. These two cases have been briefly noted in a previous section. In the first group before *y* is assimilated to the preceding dental it palatalises the latter. In the second group *v* also, sometimes, before being assimilated to the preceding dental gives the latter a labial articulation. *e. g*.

Skt. *pratyūṣa*, Pkt. *paccūsa*.
Skt. *satya*, Pkt. *saccam*.
Skt. *adya*, Pāli and Pkt. *ajja*,
Skt. *bhid-y-*, Pāli. *bhijjissati*.
Skt. *ud-vartayati*, Pāli. *ub-baṭṭeti*.
But Skt. *pakva-*, Pkt. and Pāli. *pakko*. *etc*.

In Pāli we have instances where the group *dental* + *r* has changed to a double *-ll-* in-between vowels. This seems to be only a dialectic variation and due to the fact that some dialects changed the Sanskrit *r* and *l* to *l*. *e. g*.

Skt. *bhadra*, Pāli. *bhalla*.
Skt. *ārdra*, Pāli. *alla*. *etc*.

In the group *stop* + *sibilant* the case of *k* + *s* has been noted above under *kṣ*. In *p* + *s*, sometimes *s* before being assimilated to *p* dentalises the latter *e. g*. Skt. *ju-gupsā*, Pkt. *jugaccha*. In *t* + *s*, on the other hand, the dental is usually palatalised before *s* is assimilated to it. *e. g*.

Skt. *vatsa*, Pkt. *vaccho*.
Skt. *matsara*, Pkt. *macchara*.

(12) *Semi-vowel* + *Stop*

In this group generally the semi-vowel is assimilated to the stop (the plosion in this case being in an ascending order).

Skt. *mārga*, P[illegible] and Pkt. *magga*.
Skt. *ulkā*, [illegible]*ka*.
Skt. *phalgu*,

Skt. *karma*, Pāli and Pkt. *kammo*
Skt. *garjati*, Pkt. *gajjai*
Skt. *garbha*, Pāli and Pkt. *gabbho* etc

In this respect only the group *r + dental* has to be noted as peculiar This group has a two fold development in one case the *r* cerebralises the dental and then we have a double cerebral sound while, in the other, the dental treatment alone takes places The cerebral treatment seems to belong to the East, West and North west though the free borrowing between various dialects makes it impossible to mark the isoglass. *e g*

Skt. *vart-* Pkt. *vaṭṭ-* and *vatt-*, Pali *vaṭṭ*
Skt. *sarvārthatā* Pāli *sabbatthatā* etc

The group *sibilant + stop* has the same treatment in between the vowels as initially It has been already discussed above

(13) *Semi vowel + Semi vowel*

In this group only three are to be noted *viz* *r + y* *r + v*, and *v + y* In the first two *r* is assimilated to *y* and *v* respectively When *y* and *v* are heavy, it was noted above, they are pronounced as *j* and *b* respectively Therefore *r + y* results in *-jj-* and *-r + v* in *-bb* *e g*

Skt. *kārya*, Pāli and Pkt *kajja*
Skt. *aryaputra* Pkt *ajja utta*
Skt *sarva*, Pāli and Pkt *sabba* etc

In *v + y*, the latter is assimilated to *v* and therefore *v* as a heavy sound is pronounced as *b* *e g*

Skt *kartavya*, Pkt. *kattabba*, or *kattabba* etc.

53. Final Stops

As for the final stops in Pali and the Prākṛts we have none Being at the end of a word and unexploded, the final stops have disappeared in almost all cases *e g*

Skt. *vidyut*, Pāli and Pkt. *vijjū*
Skt *yāvat*, Pkt *java*

In some cases, especially in the nouns and the present participles, the final stops are retained but not as final. The case termination is added and the whole form is then normalised.

Skt. *kurvat*,	Pkt. *karonto*.
Skt. *punar*,	Pkt. *puṇo*.
Skt. *gacchat*,	Pkt. *gacchanta*.
Skt. *su-hṛd*,	Pkt. *suhada-*. etc.

Thus the Sanskrit stops underwent changes in Pāli and the Prākṛts according to their position in a word. Initially they were strong and retained; finally they were very weak and discarded; while in-between vowels they were gradually tending from strength to weakness. The story of the Sanskrit sounds is not yet complete. We have now to look into their position in the modern Indo-Aryan languages.

Phonology of the Modern Indo-Aryan Languages

54. General Features

From the Prākṛts to the modern Indo-Aryan languages changes in general phonology are not at all new, sweeping or surprising. On the other hand, the innovations or conservations of the Prākṛt stage are generally maintained. Like the Prākṛts the modern vernaculars do not retain the Sanskrit vowel ṛ. It is changed to *a*, *i*, *u*, *ri* or *ru* and the isoglasses can be distinguished. In the case of the stops, those lost in the middle Indian period are lost as well in the modern. The initials are retained. The finals are already lost in the period just reviewed, so that question does not arise in reference to the languages now under consideration. Within the body of words there is the natural development of further weakening; or where the intervocalic stops are already lost in the Prākṛts, the resulting vowels coming one after the other are combined in the modern languages in various ways.

55 Vowels

A detailed study however, would reveal one or two new tendencies Thus in the development of the middle Indian vowels the accent as will be shown below would appear to play a great part In the Prakrts the final vowels were retained But their very position *viz* at the end of a word and hence extremely weak has affected their development in the modern languages Final long vowels are shortened short ones are usually dropped In the interior their treatment depends on the particulars of their position For a clear understanding the vowels could be studied under four different heads

I Vowels in open accented syllables,
II. Vowels in closed syllables,
III Vowels in unaccented syllables, and
IV Vowels coming together after the disappearance of the middle Indian intervocalic stops

I Vowels in open accented syllables are usually retained everywhere

(i) Skt *a* represented as *a* in all the modern dialects except the Romani which have a short *e* *e g*

Skt *vadhū* H *bahū*, Guj *vahu* Ben *bau*
Pkt *gharam* H M Guj *ghar*, Eur Rom. *kher*
Skt *pat-* "to fall M Guj *pad-*, H *par-*, Eur Rom. *perel*, ' he falls

(ii) Skt *ā* appears as *a* in Romani otherwise it is retained elsewhere *e g*

Skt *kāna*, H *kānā*, M *kāna*, Guj *kānu*, Sin *kāno*
Skt *grama-*, Pkt. *gāma* H M *gāv*
Skt. *kāla* adj H *kālā* M *kālā*, Sin *kāro* Rom *kalo etc.*
(iii) Skt. *i*
Skt *s'irah* H *sir* M Guj *s ir* Sin *s'iru*
Skt *gilati* } *girati* } , M *gil ne* Sin *giraru* Sng *'gi'*

Skt. *tila*, H. Ben. *til*, Guj. *tiḷ*, Sin. *tiru*. etc.

(iv) Skt. *ī*.

Skt. *kṣīra*, H. M. Guj. *khīr*, Sin. *khīru*, Sng. *kira*.

Skt. *kīṭaka*, M. *kiḍā*.

Skt. *dīpaḥ*, H. *diyā*, M. *divī*, Sin. *ḍio*, Sng. *divu*. et

As has been already explained *i* and *ī* are not distinguished in later dialects as in Sanskrit.

(v) Skt. *u*.

Skt. *kula*–, H. *kul*, Guj. *kuḷ*, M. *kūḷ*.

Skt. *musala*–, H. *musal*, M. *musaḷ*. etc.

(vi) Skt. *ū*.

Skt. *dyūtam*, H. *jūā*, M. *juvā*, Guj. *juvū*.

Skt. *mūla*–, H. *mūl* (*ā*), M. Guj. *mūḷ*, Sng. *mula*. etc.

(vii) Skt. *e* and *o* are retained and the Skt. diphthongs *ai* and *au* which have already become *e* and *o* in Pāli and the Prākṛts are retained as *e* and *o* in the modern dialects. *e. g.*

Skt. *dēvaḥ*, Pkt. *dē*(*v*)*o*, H. M. Guj. *dev*, Sin. *ḍeu*.

Skt. *mēghaḥ*, M. Guj. *mēh*.

Skt. *ghōṭakaḥ*, H. *ghōṛā*, M. *ghōḍā*,, Sin. *ghoṛo*.

Skt. *tailam*, Pkt. *tellam*, H. M. *tel*. etc.

Skt. *gaura*, H. M. *gōrā*, Guj. *gorū*, Sin. *goro*.
Sng, *gora*, *etc*.

II. It was shown above that in Pāli and the Prākṛts long vowels in closed syllables were usually shortened. But in the modern languages this tendency of the Prākṛts is not universally retained. In Sindhi and Lahṇḍa, for example, the distinction between original long and short vowels in closed syllables is maintained. In Marathi, Gujrati and the continental dialects, the short vowel of the Prākṛts is lengthened but the following consonantal group is at the same time simplified. In the Punjabi, on the other hand, the tendency to retain double consonants and to shorten, if long, the preceding vowel is more frequent. *e. g.*

Skt. *pārs'va*, Sin. *pāso* : Skt. *pars'va*, Sin. *pasu*.

Skt. *dānta*–, Sin. *ḍāṇḍu* (ox)· Skt. *dantaḥ*, Sin. *ḍaṇḍu*.

Skt *sarpa-*, H M Guj *sāp*
Skt *garbhini-*, H *gābhin*. M *gābhin*.
Skt. *rakta-*, Punj *rattā*, H M *rātā*
Skt *dugdha-*, H. M. Guj *dūdh*
Skt *mārgah-*, Punj *magg* Sin *māgu*, Guj *māg* etc.

III *Vowels in Unaccented Syllables*

As already mentioned before, every Vedic word, except a few expletives etc, had an accent The nature of this accent, however, is not easy to determine Even the ancient grammarians held different views Thus *Dr Varma* says, "While the above facts indicate that accent according to Indian grammarians, was predominantly musical, it is not unlikely that some authorities implied by accent a combination of both musical and stress accent [1] From the phonetic observations in some modern dialects as Gujrati, Sindhi, Punjabi, Singhalese and Bengali also it appears not unreasonable to hold that there was a stress accent by the side of the musical. Even as early as the Prākṛt stage *Jacobi* admits a stress accent in the Prākṛts while *Pischel* goes further back to the Vedic dialects and gives examples of Prākṛt forms as influenced by the Vedic accent Thus cases like the following sporadic changes in Prākṛt phonology are ascribed by him to the Vedic accent,

(i) post accentual long vowels shortened *e g*
Skt. *a'nīka*, Pkt. *aniya*; Skt *s'i'rīsa*, Pkt. *sirisa* etc
(ii) pre accentual long vowels are shortened and sometimes a single consonant following is doubled *e g*
Skt. *kumārá-*, Pkt. *Kumara* Skt. *mārjārá-*, Pkt *mañjara*.
Skt. *ēvám*, Pkt *evvam* , Skt *prēmán*, Pkt *pemma*
(iii) A stop after a pre accentual short vowel is doubled, *e g* Skt *ṛju'*, Pkt. *ujju*, Skt. *sphuṭáti*, Pkt *puṭṭai*
(iv) post accentual ā becomes i *e g*
Skt *te'ṣām*, Pkt *tesim*

1 *op cit* p 162 cf. also for what follows *Prof R.* " *Indo-Germanic Accent in Marathi*," *J R A S* 1916

But in spite of such examples in seems doubtful if there ever was an *independent* stress accent. Even in the modern languages, as *Bloch* says, the stress depends on "un rhythme purement quantitatif." This stress is not, as *Sir George Grierson* believes, a new stress quite independent of the older tone. It is probably with reference to this stress accent that the Āraṇya Śikṣā, as quoted by *Dr. Varma* (p. 166), says: "The final syllable of a word has the low accent if the penultimate is long; but it has the high accent if the penultimate is short." Of the modern languages Gujrati, Sindhi, Punjabi, Hindi, Singhalese and Bengali appear to descend from a language or languages which possess the penultimate stress. In Marāthi, however, the stress shows the effects of a previous tone (*i. e.* musical) accent of Sanskrit. Thus Skt. *mārjārá* becomes *mañjāro* in Gujrati which stresses the penultimate; Marāthi has *māñjar* where the quantity of *a* in *-ja-* is longer than usual.

The quantity of the accented syllable is usually retained. But in the case of unaccented syllables the change depends on whether they precede or follow the accent. The weakest syllable is the one immediately following, while the next weakest is the one immediately preceding, the stress. Thus long vowels before the stress are shortened, while short ones are retained as indeterminate *i, u* or *a*. *e. g.*

Skt. *ābhíraḥ*, Guj. *ahīr*.

Skt *saubhā́gyam*, Guj. *sohāg*, Sin. *suhāgu*.

Skt. *dhurā́laḥ*, H. *dharāl* etc.

The initial short vowel when unaccented is lost. *e. g.* –

Skt. *abhyáñjanam*, H. *bhījnā*, M. *bhij-ṇě*, Guj. *bhijva*.
Skt. *araghátta* –, H. *rahaṭ*, M. *rahāṭ*.
Skt. *aráṇyam*, M. Guj. *rān*. etc.

In this connexion it should be noted how the quantity of the vowel determines the place of the accent. In the Skt. *mārjārá*, for example, the accent on the final (and therefore

the weakest) syllable is shifted to the preceding long vowel. Similarly in the modern vernaculars could be found instances where the long vowel of a word is shortened in a compound or derivative form from it Thus *Beames* mentions (Vol I, p 152) examples like the following ;

M *bhīk* (noun),	but *bhikāri* (adj).
Guj *bhīkh*	but *bhikhāri*.
M. *lākh*	but *lakhpati*.
M. *kām* (noun),	but *kamāvnĕ* (denominative)

In the syllable following the stress while *a* remains, *i* and *u* are changed to *a*. [It should be noted that *a* in such a position is more neutral *i e.* pronounced as (^)- like *a* in the English unaccented *was*]. *e g*

Skt. *háriṇī*,	M *haran*
Skt *mānusaḥ*,	Guj. *mānas*.
Skt *kámalam*,	M. Guj *kamal* etc

In words having more than three syllables there was probably a secondary stress In such cases a short vowel between the main and the secondary stress is lost. *e g*

Skt. *árgalĭkā*,	M. *āgḷī* <* Vedic *árgalĭkā*
Skt. *căkravākaḥ*,	H. *cakvā*. etc.

The above discussion could not be supposed to include all cases or explain each and every peculiar phonetic change. There are other factors affecting those generalisations. Analogy, borrowing or the peculiar value of a syllable, often times go to shift the place of the accent. In Sanskrit, for example, the accent fell usually on the root syllable of the thematic verbs and sometimes on the formative suffix ; while in the case of the athematic verbs the accent fell on the termination or sometimes on the root. In the Prākṛts there was a strong tendency to replace athematic by thematic verbs and analogically the place of the accent was [illegible] on the root syllable. Thus Skt. *bandhāmi* [illegible] *dhāmi*, Skt. *dadāti* to *dádati* and so

too affects the accent. It is on account of *value* that a particular syllable of a word is stressed because that syllable is felt to be especially important for the comprehension of the sense conveyed by the whole word.

IV. *Vowels + Vowels*

While discussing the intervocalic single stops in the Prākṛt stage it was observed as a rule that the voiced stops dropped out. Owing to this feature the vowels in the Prākṛts are too often in hiatus. The hiatus as such is not retained by the modern languages. It is removed in two ways: (1) by combining the two vowels, and (2) by inserting *h* or *y*. As a rule like vowels coming together result in a single vowel of their kind.

Thus a + a (both short or long) become *ā*, i + i (both short or long) become *ī* and u + u (both short or long) become *ū*. *e. g.*

Skt. *kumbhakāra*-, Pkt. *kumbhaāra*, M. *kumbhār*.
Skt. *nagara*-, Pkt. *naara*, Guj. -*nār* at the end of names of certain town places.
Skt. *dvitīya* / *dvitiyya* } Pkt. *biiya*, *biijja*, Punj. *biyā*, Ks'm. *biyo* M. *bīj*, Guj. *bījo*.
Skt. *svara* -, Pkt. *su(v)ura*, M. *sūr*. etc.

In certain cases *a* + *a* result in *e*. This happens when the intervocalic stop has not yet lost completely its articulation but lingers as a *laghu-prayatna-tara-ya-kāra*. *e. g.*

Skt. *s'atam*, Pkt. *sadam* or *sayam*, M. *s'e*.
Skt. *nagara* -, Pkt. *nayara*, M.- *ner* like Guj. *nār*.
Skt. *kadalī*, H. *kelā*, M. *keḷā*.
Skt. *badara*, H. *ber*. etc.

When dissimilar vowels come together the combination is not as uniform. Thus (i) *ī* + *a* result in i, (short or long) (ii) *ī* + *ā* in *yā*, *iyā* or *e* and (iii) u + a (both short or long) in *ū*. *e. g.*

(i) Skt. *s'ītala*, M. *s'iḷā*, Guj. *s'iḷũ*.
Skt. *pib* -, Pkt. *pia* -, M. *pi-ṇĕ*, H. *pī-nā*. etc.
Skt. *jīv* -, M. *ji-ṇĕ*, H. *jī-nā*.

(ii) Skt. *dvi arddha*, Pkt *diaddha*, H *derh*.
(iii) Skt. *vāluki*, Pkt *vālui*, M *vāḷū*.
Skt *yugam*, M *jū*, H. *jū*
Pkt *tu(m)am*, M *tū*.etc.
Skt *devālaya*, Pkt *dēālaya*, M *deūḷ* etc

A peculiarity of Gujrati should be noted in this connexion. While Marathi Hindi and a number of other modern languages combine the Prākṛt *a+i* and *a+u* into *ai* and *au* Gujrati has *E* (like *a* in Eng *man*) and *O* (like o in Eng *not*) respectively e g

Skt. *pravis ati*, M *paisñe*, H *paisnā*, but Guj *pesvū*
Skt *upavis-*, M *bais*, but Guj *besvū*
Skt *caturdas a* M H *caudā*, but Guj *codā* etc.

Lastly *e+a* and *o+a* result in *e* and *o* respectively e g.

Skt *sauvarna* Pkt. *soarna*, H *sonā*, M *sonē* etc.

As mentioned above *y* and *h* are sometimes inserted to avoid the hiatus e g

Skt *kōkila-*, Pkt *koila*, Guj *koyaḷ*, Or *koyil* etc.

V Lastly there remain certain vowel changes which cannot be explained or included under any of the above heads Nevertheless there would be no need or justification to assume such instances as arbitrary With most of them some general factors of phonetic development would be found at work. Thus analogy, assimilation etc, are responsible for changes like the following

Skt *cañcū*, H *coñc* through a form like *cañcu*

From Skt. *yāvat*, through *yevva*, where the *y* has palatalised the following vowel, Marathi has *(y)evdhe* and then correspondingly it has *tevdhe* equivalent to Skt. *tāvat* though there is no palatal influence in the latter case to change *ā* into *(y)ē*

Final Vowels

While initially and in the interior of a word vowels are as a rule retained the final vowels of the Pāli ... the ... stage are entirely lost in all the modern ...

Pkt. *vijjū*, M. *vīj*, H. *bīj*.
Pkt. *aggi*, M. *āg*, H. Guj. *āg*.
Pkt. *ratti*, H. M. *rāt*. etc.

Final -*n* and -*m* of Sanskrit are reduced to an *anusvāra* in the Prākṛts ; this *anusvāra* is lost in the modern languages, *e. g.*

Skt. *gṛham*, Pkt. *gharam*, H. M. *ghar*.
Skt. *devān*, Pkt. *devāṃ*, H. M. *dev*. etc.

56. Consonants

In a previous section the course of natural development of the stops has been illustrated. The chief thing to be noted is the particular position of a stop in the word. Initially it is strong, hence is usually retained ; finally it is weakest with the result that quite early it has dropped out ; and in-between vowels it submits to a gradual processs of weakening. This general process of development holds good as equally in the case of the modern vernaculars as in that of Pāli and the Prākṛts. The object of this and the following sections is more to illustrate that process than repeat the general features noted above; and, at the same time, a few peculiarities would be explained.

57. Single Stops

(A) Initially single stops are usually maintained in almost all the modern languages.
Examples :

K—

Skt. *karoti*, Pkt. *karedi*, H. *karnā*, M. *karṇe*, Sin. & Sng. *karaṇu*, Ks'm. *karun*.
Skt. *kīṭaka*, M. *kiḍā*, Guj. *kīḍo*, H. *kīṛā* etc.
Skt. *karpaṭa*- H. *kapḍā*, M. Guj. *kāpaḍ* etc.
Skt. *kāla*-, adj. "black", H. *kālā*, M. *kāḷā*, Sin. *kāṛo* etc.

T—

Skt *tila*, H *til*, M *til*, Sin *tiru*, Sng *tala* etc.
Skt *tāpaya*, M *tāvnē*, Sin *tainu*, Sng *tavanu*, Ksm *tavun*

In some cases there is spontaneous cerebralisation of initial single dentals. This is attributed, according to Grammont's theory, to a general tendency of the Indo Aryans to relax the pronunciation in favour of articulation in the neighbourhood of the palatal arch [1] Though only the voiced dentals are more frequently cerebralised than the unvoiced, instances of the latter are not lacking It is sometimes suggested that the Indo Aryan voiced dentals were pronounced further back than the unvoiced ones But one would be tempted to believe that the whole series of Indo Aryan dentals varied in pronunciation in different dialects, front sounds in some and back sounds in others Though the free borrowing between the various dialects renders it difficult, it might be said that the back pronunciation belongs to Hindi and the eastern dialects e g

Skt *tilaka-*, H *tikā*, Punj *tikkā* M *til*, Guj *tilu*
Skt *dul-*, or *dol-*, H *dul-nā*, M *dol-nē* etc

P—

Skt *pāniyam* H *pāni*, M *pāni* and so on.
Skt *prāpaya*, Pkt *pāvedi*, H *pau-nā*, M *pāv-ne*, Sin *painu* etc

Palatals

If the existence of a variety of pronunciation of the dentals is only a probability, that of the palatals is assured Earlier grammarians of the Prākṛts like Vararuci and Mārkandeya have already noted this [2] In the north and north east the original palatals are retained as such. In

1 *Cf Prof R L Turner* Cerebralisation in Sindhi J

2 See J R A S 1913 pp 391 ff

Marathi in the south and Sindhi in the west, the palatals, except before palatal vowels, have become dento-palatals, *i. e. c* is pronounced as *ts* etc. while in Rajasthani and Gujrati running like a wedge between Sindhi and Marathi, and in Singhalese in the extreme south the palatals have been simplified into *s* and *s*. *e. g.*

Skt. *cora-*, H. *cor*, M. *tsor*
Skt. *cakki*, "mill-stone", Marwari *sakki*
Skt. *calliti*, "even", M. *tsali* etc.

Aspirates

On the continent of India as a whole aspirates have lost their occlusion. Initial aspirates, though retained in the written, have lost their aspiration in the spoken dialects. Kasmiri in the north has lost voiced aspirates while Singhalese in the extreme south has lost all aspirates. In the Gypsy dialects, however, voiced aspirates have lost their voice while the unvoiced have become spirants like *x*, *f*, etc. The palatal aspirate *ch* becomes *s* or *s'* in Marathi and *s* or *h* in Singhalese. *e. g.*

Skt. *ghaṭa-*, H. *ghaṛā*, M. *ghaḍā*, Sin. *ghaṛo*,
Ks'm. *garu*, Rom. *khoro*
Skt. *khara-*, H. *kharnā*, M. *kharṇe*, Rom. *xoro*,
Sng. *karu*

Skt. *chardayati*, H. *chāṛnā*, M. *soḍṇe*,
Sng. *hajanu*, Rom. *cordel*
Skt. *phalam*, H. *phal*, M. Guj. *phaḷ*, Sin. *pharu*, Sng. *palu*
Skt. *dharati*, H. *dharnā*, Sin. *dharaṇu*, Ks'm. *darun*
Sng. *daranu*, Rom. *terel*
Skt. *bhakta-*, H. M. *bhāt*, Sin. *bhatu*, Ks'm. *bata* etc.

Voiced Unaspirates

These stops are usually retained. The frequent tendency of changing *d-* to *ḍ-* has been already referred to. In Sindhi alone there is a peculiar development of the original voiced

unaspirates standing single at the beginning of a word. The very articulation is changed and the new sounds are known as "*recursives.*" Their nature is explained as follows. "Immediately after the occlusion by lips or tongue and palate has been formed, the glottis also is closed. The larynx is lowered and there is *considerable* general muscular tension. The glottis is not opened until the lip or tongue occlusion has been broken, so that some air is sucked back to behind the point of occlusion. Then the glottis is opened to permit the formation of voice. It is possible that the glottis is again closed before the following vowel is pronounced."[1]

Examples:

Skt. *galah*, Sin *garu*, H. *galā*, M. *galā* etc.
Skt. *dantah*, Sin. *dandu*, H. M. *dāt*, Sng *data*.
Skt. *bilam*, Sin *biru*, H. *bil*, M. *bīḷ*, Sng *bala*.
Skt. *janah*, Sin. *jano*, H. *janā*, M. *jan* etc.

(B) Intervocalic

As early as the Pāli and Prākrits intervocalic single stops, as already shown, were weakening and in one of the Prākrts *viz.* Mahārāṣṭrī they completely *disappeared*. This process of weakening is completed by the time of the modern Indo-Aryan Vernaculars. On the whole, intervocalic single stops are entirely lost while the intervocalic aspirates have lost *their occlusion*. In some languages unaspirated labials are changed to *v* and further some of them have lost this *v* e g.

—*K*—

Skt. *kumbhakāra*, M. *kumbhār*.
Skt. *cakravākah*, Pkt. *cakkavāo*, M. Guj *cakvā*, Sin. *cakao*,
Skt. *yūkā*, H. *jū*, Sin. *jūa*, Rom. *juv*, etc.

—*kh*—

Skt. *mukham*, H. *mūn*, Sin. *muhū*, Sng. *muva*, Rom *mui*.
Skt. *likh*–, M. *lih-ne*, Sng. *liyana*.

1. *Prof. R. L. Turner*, S. O. S. B., Vol. III

—*g*—

Skt. *lāgayati* (rt. *lag*– "to put together"), H. *lānā*, Ks'm. *lāyun*. Sng. *lanu*.
Skt. *yugam*, H. *jū*, M. *ju*, Sin. *juharu*, Sng. *yu*.
Skt. *nagara*–, Guj.–*nār*, M.–*ner* (see above).

—*gh*—

Skt. *mēghaḥ*, H. *mẽh*, Sin. *mĩhu*, Sng. *me*.
Skt. *prāghuṇaḥ*, M. *pā* (*h*) *uṇā*, H. *pāunā*, Nep. *pauna*.
Skt. **baghinī*, H. *bahin*, M. *bahīn*, Ben. *ben*, Sng. *bihini*.

—*c*—

Skt. *sūcī*, H. M. Sin. etc, *sūī*, Rom. *suv*.
Skt. *kāca*–, Sin. *kao*.

—*j*—

Skt. *rājā*, Pkt. *rāā*, H. *rāy*, M. *rāv*.
Skt. *bījam*, H. *biyā*, M, *bī*.

—*t*—

Skt. *tṛtīya*–, Pkt. *titijja*, H. M. *tīj*.
Skt. *ghṛtam*, H. M. Sin. Gui. etc. *ghī*.

The Romani dialects alone among the Indo-Aryan branch retain intervocalic dentals. They are changed, however, to –*l*– in the European and to –*r*– in the Syrian Romani dialects. e. g.

Skt. *ghṛta*–, Eur. Rom. *khil*, Syr. Rom. *gir*.
Skt. *s'atam*, Eur. Rom. *sel*, H. *sau*, M. *s'e*.
Skt. *yuvatiḥ*, Eur. Rom. *juvli*, Syr. Rom. *jūar*.

—*th*—

Skt. *s'apatha*, H. *sōh*, Eur. Rom. *sovel*.
Skt. *gāthā*, Old H. *gāhā*, Sin. *gāh*.

—*d*—

Skt. *nadī*, M. *naī*, Sin. *nāī*, Sng. *nī*.
Skt. *mṛdu*, H. M. *mau*.

—*dh*—

Skt. *badhira*, H. M. *bahirā*, Ben. *baherā*, Sng. *bihiri*.
Skt. *dadhi*, H. M. etc. *dahī*.
Skt. *vadhū*, Old M. *vahū*, H. *bahū*, Sin. *wahu*.

—*p*—

Skt *dipah*, H *diyā*, M *dio(y)ā*, Sng *diva*, but Sin. *dio*
Skt *lūpah*, M *kuva*, H *kuuā*
Skt *tapaya–*, M *tāv–nē*, Ks'm *tāvun*, H *tāu–nā*, Sin *tainu*.

—*b*—

Skt *pibati*, H *pi–nā*, (M *pi–ni*, Rom *piel*,) Nep. *piu–nu*.
Skt *prabala*, M *pāvlā* ?

—*bh*—

Skt *gabhira*, H M *gahirā*
Skt *bibheti*, M *bihinē*, Rom. *biel*, etc

In the Singhalese intervocalic *–bh–* remains as an occlusion, but appears as *–b–* as that language has lost all aspirates. *e g*

Skt *lobha–*, Old M *loho* but Sng. *loba*
Skt *labh–* H. *lahnā*, M *lāhnē*, Sin *lahanu*, Sng. *labanu*

In contrast to the above stops the cerebrals are universally retained in between vowels They have not, however, escaped the effects of a weak position Thus, in the first place, the unvoiced have been softened with voice *e g*

Skt. *katu–* M *kadu*, Sin *karo*, Sng. *kulu*.
Skt *ghōtaka–*, H *ghorā*, M *ghoda*, Sin *ghoro*
Skt *kitaka–*, M *kidā*, H *kīrā*

The case of intervocalic voiced cerebrals *–d–* and *–dh–* is more complicated In the two southern languages—Marathi and Singhalese—, *–d–* and *–dh–* change to *–ḷ–* and *–lh–*, while in Sindhi, Lahnda, Punjabi, Hindi, Bengali, Nepali, and Kas'miri they are retained *e g*

Vedic *dhūlih*, M *dhūl* but H. *dhūr*, Sin *dhūri*.

(The classical Skt from *dhūlih* must have been borrowed from a *–ḷ–* dialect otherwise H *dhūr* could not be explained Probably, as it had no *l* sound, classical Sanskrit went back to the nearer *l* sound But the Hindi and Sindhi forms presuppose and go back to a form *dhūd*)

Skt. *pīḍ* } Vedic *pīḷ* }	H. *peṛ-nā*,	Sin. *pīṛaṇu*.
	M. *piḷ-ṇē*,	Sin. *peḷenu*.
Skt. *argaḍaḥ*, } Vedic **argaḷaḥ* }	Ben. *āgaṛ*	
	M. *āgaḷ*	
Vedic *dṛḷha-*,	Sng. *daḷa*	
Skt. *gūḍha-*,	Sng. *gūṛho* etc.	

58. Nasals

Of the five nasals, *ṅ*, *ñ* and *ṇ*, as mentioned in connexion with the Prākṛts, are not independent sounds. They appear in combination with a stop of their own class and hence they are not found in all positions while *n* and *m*, like the other stops, appear initially, finally and in-between vowels. Like the stops, too, they are lost finally by the time of the modern vernaculars.

(A) Initial *n-* and *m-*

At the beginning of a word they are retained. A few cases were observed in the Prākṛts where initial *n-* was cerebralised. This cerebralisation seems to be confined only to the literary type of Prākṛts. In the modern vernaculars such a tendency is conspicuous by its absence. Perhaps, even at the time of the Prākṛts, initial *n-* was not cerebralised in the spoken type of dialects. *e. g.*

n—

Skt. *nakula-*, H. *nevlā*, Punj. *nevaḷ*, Ben. *neul*.
Skt. *nagna-*, H. *nāgā*, M. *nāgvā*, Sng. *nagā*, Rom. *nango*.
Skt. *naptā*, H. *nātī*, M. *nātū*, Sng. *natu*.

m—

Skt. *mānuṣaḥ*, M. *māṇūs*, Sin. *māṇhu*, Sng. *minisa*
Skt. *marate*, M. *mar-ṇē*, Sin. *maraṇu*, Ks'm. *maran*
Skt. *mārg-*, " to seek ", M. *māgṇē* etc.

(B) Intervocalic *-n-*, *-m-*, and *-ṇ-*

Sanskrit intervocalic *-n-* appears as *-ṇ-* in the Prākṛts. This latter *-ṇ-* has a two-fold development in the modern

languages Th- dialects in which it is retained project like a wedge southwards on the route from the North western gates to Bengal Starting from S ina in the extreme north along Kas miri and the foot of the Himalayas to Nepali Hindi Bihari to the south and Bengali further east all the dialects change Pkt. -ṛ- to -n- Cutting this line at the West Pahari spread the groups Lahnda Sindhi Rajasthani Gujrati and Marathi where the Pkt. -ṇ- is retained Outside India Singhalese and Romani belong to the first (i e -n-) group e g

Skt. *dhanam* Ksm *dana* Nep *dhan* Sng *dana* M *dhan* Sin *dhanu*
Skt. *janah* H *jana* Rom *jeno* M *jan* Sin *jaro*
Skt. *a-nayati* } H *an na* Ksm *anun* Rom *an-el*,
Pkt *a-nei* } M *an-re* Sin *aranu*

Besides this -ṇ- from Skt -n- Prakrt had another -ṇ- which could be distinguished from the first as the original (because it comes from Skt) -ṇ- The development of this original -ṇ- in the modern languages is as interesting as complicated The dialects that retain the secondary -ṇ- of Prākrt keep the original -ṇ- as well unchanged But of the other group where Skt -n- (i e Pkt -ṇ-) is maintained as -n- E Punjabi Nepali Hindi and Bihari change the original -ṇ- also to -n- e g

Skt *puraṇa-*, S ina *puraru* Sin *purano* Guj *purāṇū*, Sng *pararu* H *purānā* Nep *puranu*
Skt. *phanah* Sin *phaṇi* W Punj *phan* M Guj *phaṇi*, Sng *pana* H *phanī*
Skt. *vārijah* Ben *bariya* Sin *wanjo* M *vani* H *baniya*

Skt. intervocalic -m- is retained in the Prakrts But in its development into the modern languages it is gradually weakning Like other labial stops -m- also tended to be opened and the result was a nasalised labial ~ side India Singhalese retains intervocalic -m- Romani dialects it is changed to -v- e g

Skt. *nāma*, Rom. *nav*, Sng. *nama*: H. *nāū*, M. *nā*
Sin. *n*

Skt. *grāmaḥ*, Pkt. *gāmo*, Sng. *gama*, Rom. *gav*,
M. *gā*

Skt. *samarpayati*, H. *saũpnā*, Sin. *saupṇu*, M. *sõ*

In Gujrati the treatment of intervocalic *-m-* depends the accent. When *-m-* is immediately preceded by st accent it is retained. *e. g.*

Skt. *nā'ma*, Guj. *nām*
Skt. *grā'maḥ*, Guj. *gāmo*
Skt. *syā'malaḥ*, Guj. *sāmḷo*; but
Skt. *samárpayati*, Guj. *sõ̃pvũ*.

59. Semi-Vowels

(A) Initially *y-*, *v-*, *r-*, *l-*, are maintained unchanged with a few exceptions some of which are already visible in the Prākṛt stage. Thus *y-* changes in many modern vernaculars like Hindi, Sindhi, Bengali etc. to *j-*. Similarly *v-* changes to *b-* in Siṇa and all the eastern languages from E. Punjabi to Oṛiya in the south and Assamese in the east. Outside India, Singhalese and the Romani dialects except the European Romani retain *v-*. *e. g.*

Skt. *yaḥ*, H. M. *jo*, Kśm. *yih*.
Skt. *yavaḥ*, H. *jau*, Sin. *jau*, Śiṇa. *yō*.
Skt. *vikrī-ṇā-ti*, M. *vik-ṇē*, Sin. *vikiṇaṇu*, Sng. *vikiṇu*,
H. *bik-nā*, Ben. *bikā*, Eur. Rom. *biknel*.
Skt. *vanam*, M. *vaṇ*, H. Ben. *ban*.
Skt. *vims'atiḥ*, M. *vīs*, H. *bīs*.
Skt. *rājā*, H. *rāy*, M. *rāv*.
Skt. *rakṣati*, M. *rākh-ṇē*, Sng. *rakhnu*, H. *rakhnā*.
Skt. *lajjā*, H. M. Guj. *lāj*, Sng. *lada*, Rom. *laj*.
Skt. *lavaṇa-*, M. *loṇ*, Ben. *loṇā*, Sin. *lūṇu*, Rom. *lon*

(B) *-y-*, *-v-*, *-r-*, and *-l-*

In-between vowels *-y-* and *-v-*, though retained i writing in some modern Indo-Aryan languages, are ver

k while in others they have entirely dropped out Inter-
lic -r- is maintained while intervocalic -l- is changed to
in Oriya, Bihari, E. Hindi and in all those dialects where
is changed to -n- In Sindhi -l- changes to -r-. e. g

Skt. *priyakāra*. Pkt. *piaāra*. H M. *pyār*.
Skt. *bhayam*. Guj *bho*
Skt. *dēvah*. M *dev*. H *deu*. Sin *deu*
Skt. *sauvarna* -. M *sonē*. H *sonā*
Skt. *badhira*. H M *bahirā* etc
Skt *vāluka*. M Guj *vāḷū*. H *bālı*. Sin *vārī*.
Skt *phalam*. H *phal*. M Guj *phaḷ*. Sng *pala*. Sin. *pharu*.
Skt *kāla* -. H *kālā*. Sin *kāro* Ben. *kālo*. Sng *kalu* etc.

60. Sibilants

The tendency observed in the Prākṛts of merging the ree Sanskrit sibilants *s'*, *ṣ*, *s* into one is completed in the iodern vernaculars. On the continent all the three are ierged into *s* Outside India, the same tendency is notice ble in Singhalese where the *s* is further opening into *h* Even n the continent this weakening of *s* into *h* could be observed, i Sindhi for example. In the extreme north Sina still dis nguishes all the three sibilants of Sanskrit while Kas'miri etains *s* and merges original *s'* and *s* to *s'* European Romani has a similar treatment to Kaśmiri while Syrian Romani retains *š* (Skt *ṣ*) but changes Skt *s* and *s'* to *s* As ias been already explained no dialects distinguish between nitial and intervocalic sibilant e. g

Skt. *s'uska*-. H *sūkhā*. M *sukā*. Sng *siku*. Kśm *hoku*. Sina *s'uko*. Eur Rom *suk(h)o*
Skt. *s'aknoti*. H *sak-nā*. Kśm *hekun*
Skt. *das a*. H. *das*. Syr. Rom *das*. Eur Rom *des*. M *dahā*. Sin. *daha*.
Skt. *s'as'a*-. H *sasā*. Eur. Rom. *sosoy*.

Skt. *ṣaṣṭi*, H. M. *sāṭh*, Sin. *saṭhi*.
Skt. *s'vas'ura-*, H *susar*, M. *sāsrā*, Guj. *sasrc*

The change of *s* to *h*, frequent in the Singhalese, is ec ly frequent on the continent in Sindhi and Punjabi. 1 *Beames* (Vol. 1, p. 259) gives instances like the follow:

Skt. *kes'arī*, Sin. *kehari*, Punj. *keharī*, M. *kesar*.
Skt. *peṣaṇa-*, Sin. *pīhaṇu*, Punj. *pīhṇā*.
Skt. *s'vāsa-*, Sin. *sāhu*, Punj. *sāh*. etc.

It is not, however, easy to agree with *Beames* when says that " it is in complete correspondence with this anci change (*viz*. in Avesta) that we find the propensity to place *s* by *h* exhibiting itself in its fullest force in those p of India which lie nearest to the Iranian frontier, namely, Punjab and Sindh." (p. 259). The change of *s* to *h*, at most, shows that Sindhi and Punjabi, unlike other co nental languages, distinguish between initial *s*-, (which tl retain) and intervocalic -*s*- (which oftentimes they chai to -*h*-). This distinction, it is interesting to note, is a maintained by the Dardic group. Thus in S'iṇa, for examp while initial sibilants are unchanged as in the above instanc in-between vowels they are voiced. *e. g.*

Skt. *mānuṣaḥ* S'iṇa. *manujo*.
Skt. *musala-*, S'iṇa. *muzul*. etc.

Perhaps, as mentioned in Section 37, the tendency Sindhi and Punjabi to distinguish between initial and inte vocalic sibilants is one of the traces of the influence of ear Dardic invaders.

61. Conjunct Consonants

In the Prākṛts, as already illustrated, conjunct consonant were initially simplified. These single consonants are treated in the modern languages like all other (original) initial conso nants. The case of intervocalic consonant groups is very simple, as all possible groups of consonants in this position

fore, are not at all concerned with any consonantal groups except the intervocalic double consonants of the Prākṛts. Their development is three fold (1) In Punjabi and Lahnda they are maintained unchanged, (2) in Sindhi and Singhalese the double consonant is shortened i e reduced to single consonant and (3) in all other languages while the double consonant is shortend the preceding vowel is lengthened Sindhi has another peculiarity, already noted. Intervocalic voiced double consonants are treated like initial single voiced consonants i e they are pronounced as *recursives* e g.

Skt *kukkutah*, Pkt *kukkudo*, Punj *kukkar*, Sin *kakuru*, Sng *kukulā*, H *kukrā*, etc.
Skt *lajja*, Punj *lajj* Sin. *laja*, H M Guj. *lāj*
Skt. *baddha-*, Sin. *badho*, Sng *bada*, etc.

Stop + Stop

Skt. *matkurah*, Pkt. *makkuno*, Guj *mākhan*, etc.
Skt. *rakta-*, Pkt. *ratto*, Punj *rattā*, H M *rātā*,
Skt *s'abda* Pkt *saddo*, Punj *sadd*, Sin *sado*, M *sād*,

Stop + Nasal

Skt *agnih*, Pkt *aggi*, Sin *agi*, H M Guj *āg*
Skt *vijñāpayati*, Pkt *vinnavedi*, H *binavinā*, M *vinavinē*, Guj *vinavvū*,

Stop + Semi *vowel*

Skt *satya-*, Pkt. *sacca*, Punj *saccā*, Sin *sacu* H Guj *sāc*,
Skt *adya*, Pkt *ajja*, Punj *ajja*, Sin *aju*, H M *āj*

The group *dental + v* had a two fold development in the Prākṛts, as a double labial or a double dental. In the modern languages the mixing up has been too much to distinguish the labial and the dental groups Marathi, Singhalese, and bably Kas'miri have the dental treatment ' Sindhi, Hindi, Bengali etc have a double la' '

Skt. *dvē*, M. *dō*, Guj. *be*, Sin. *ba*. Hindi has probably borrowed the form *do* from the other group.

Skt. *dvādas'a*, Sng. *doḷos*, H. *bāra*, also borrowed by Marathi.

The group *r* + *dental* has also dialectical variations. In the east and north-west the dental is cerebralised before *r* is assimilated to it while in the west the dental remains. Singhalese is a cerebralising dialect. *e. g.*

Skt. *caturtha*, Sin. *cotho*, Guj. *cothũ*, M. H. *cauthā*; but Ben. *coṭho*, Kśm. *coṭh* etc.

Skt. *ardha-*, H. *ādhā*, Sng. *aḍa*.

Skt. *vartiḥ*, M. *vāt*, H. *bāti*, Sng. *vātiya*, etc.

In the group *dental* + *r* Sindhi is alone in retaining the *r* and at the same time cerebralising the dental. In the dialect Lār of Lower Sind *r* is assimilated to the preceding dental.[1] *e.g.*

Skt. *putra-*, Prt. *putto*, M. *pūt*; Sin. *puṭru*, Lār. *puṭṭu*.

Skt. *gātra-*, H. *gāt*, Sin. *jaṭu*.

Skt. *trīṇi*, Pkt. *tiṇṇi*, H. M. *tīn*, Sin. *ṭe*. etc.

Sibilant + Stop

This group is simplified in the Prākṛts by an aspirate. In the modern languages this aspirate has the same development of other aspirates discussed above. *e. g.*

Skt. *skambha-*, Pkt. *khambho*, M. *khāb*, Guj. *khām*, etc.

Skt. *mastaka-*, Pkt. *matthaa*, Punj. *matthā*, Guj. *māthū*.

Skt. *dṛṣṭi*, Pkt. *diṭṭhi*, Guj, *diṭhũ*, H. *dīṭh*, Old M. *diṭhi*.

Kṣ in Mahārāṣṭri Prākṛt became *ch* and in Śauraseni, *kh*. This difference is maintained in the modern languages. In Marathi this *ch* changes to *s*. *e. g.*

Skt. *akṣi*, Pkt. *acchi* and *akkhi*, H. Guj. *ākh*, Sng. *ás*

Skt. *ikṣu*, M. Guj. *ūs*, H. *īkh* or *ūkh*.

Skt. *kṣetra-*, H. *khet*, M. *s'et*. etc.

1. See *Dr. Trumpp*.-Grammar of the Sindhi Language-1872, Introduction, p. XXXVIII.

Nasal + Stop

In the Palı and Prākrt stage this group on the whole, remained unchanged The beginnings, however, of a possible change, *viz* voicing of unvoiced stops have already been noted This tendency is carried much further in the modern dialects It is nevertheless a tendency confined only to certain areas

(*A*) *Nasal + Unvoiced Stop*

To the west, extreme north west and north the unvoiced stop is voiced in the Dardic group, Lahnda Sindhi Punjabi, Pahāṛi and Nepali while in the languages of central, eastern and southern India it remains unchanged. In the Romani dialects as well the unvoiced is voiced after a nasal *e g*

Skt *kankana-*, M Guj *kākan* H Ben *kākan* Sin *angu*, Ksm *kangun*

Skt *anka -*, M *āk* Guj *ākdū* H *ānkrā*, Sin *angu*

Skt *pañca*, H M Guj Ben etc *pac*, Sin Punj *pañj*

Skt *kantaka -*, M *kātā*, Sin *kando*

Skt *grantha-*, M. *gathne*, Ksm *gand*, Sin *gahndi*

Skt *dantah*, H M Guj *dat*, Sin *dandu*

Skt *kamp-*, H M Guj *kāp-*, Sin *kambanu*

Skt *vam'sa-*, H *bās* M *vās* Sin *vanjhu* etc

(*B*) *Nasal + Voiced Stop*

The dialects that retain the unvoiced without any change also retain the voiced, in the other group the voiced stop is assimilated to the preceding nasal. *e g*

Skt *anga-*, H M *āg* Sin *anu* Nep *ān*

Skt *piñjhra-* Guj *pijro*, Sin *piniro*

Skt. *kambala-*, M *kabal* Guj *kablo*, Sin *kamaru*, Punj *kammal*

Skt *bandh-*, H *bīdhna* Punj *bann-*

Skt *randā*, A *rār*, Sin *rara*,

62. Spontaneous Nasalization

In some of the modern Indo-Aryan languages there is a peculiar method of simplifying the double consonants not referred to so far. At the time of the explosion some air is let out through the nasal passage with the result that instead of a double stop we have a *nasal+stop*. Thus Skt. *nagna-* becomes *nagga-* in Pkt., but Hindi has the form *naṅgā*. That such a tendency is as early as the Prākṛts is evident from the fact that Mārkaṇḍeya quotes instances of Pkt. forms like *vaṅka* instead of *vakka*. With reference to forms like these *Bloch* says (Section 70) " Toute voyelle longue tend a' de've lopper une re'sonance nasale. " This view does not so much explain as describe the phenomenon. That the nasalisation simplifies the pronunciation is clear enough; that it existed in the Prākṛts seems probable. The literary Prākṛts offer no evidence in this respect. Is it possible that the spoken dialects had nasal + stop instead of a double stop more freqently?[1] If the literary documents of Indo-Aryan dialects of the early days do not furnish evidence, it is interesting to see that in the Dravidian branch this method of simplifying double consonants is very common. *e. g.*

Kan. *soṭṭa*, crooked and *soṇṭa*.
Kan. *pordu*, to assume etc. and *pondu*.
Kan. *kakkuḷa*, arm-pit and *kaṅkuḷa*.
Tamil. *tiru-ttu*, to correct. (trans.); *tiru-ndu* (intrans.) etc.

If the spoken type of Prākṛts had this "spontaneous nasalisation," could it be supposed as due to the Dravidian influence? For the present, however, it would be necessary enough to note that the modern Indo-Aryan languages have examples like,

Skt. *uṣṭra*, a camel,	M. *ũṇṭ*,	Pkt. *uṭṭho*.
Skt. *vakra*,	M. *vā̃kḍā*.	Pkt. *vakka*,

1. Cf. Mahārtha-manjari, an Apabhrams'a work mentioned by *Sir G. Grierson*, J. R. A. S., 1924, pp. 381 ff.

Skt *pippali* M *pimpal* H *pipal*,
Skt *paksa-*, M *pankhā* etc

. 63 Summary

This in brief, is the history of the sound system from the Vedic times to the present days In spite of the lapse of more than 2000 years the speech capacity of the Aryan invaders has not undergone any considerable change The vowels are the same consonants are the same but the complexity of combinations has been softened and simplified The tendency to simplify is not confined only to the phonetic aspect of the language It is visible even in the morphology and to that question attention would now be diverted.

PART V. MORPHOLOGY

64. Language, as has been suggested at the very beginning, is both an impression and an expression. The speaker first forms for himself certain verbal impressions and these he conveys to others. Looked at from this point of view spoken language has two processes — one analytical and the other synthetic. The different impressions formed within the brain of the speaker show the analytical aspect of his language. These impressions are combined before they are conveyed. Expression is the synthetic aspect. There language is, generally speaking, not mere words but groups of words; and further these words are not grouped anyhow but in a way as to convey one whole, harmonious picture. In other words, language consists essentially of systematic word-combinations; these latter are termed as sentences.

Different languages have different ways of combining various verbal impressions into one coherent idea. Syntax, as this combination is technically called, varies according as an idea is expressed with relation to the speaker, or with reference to the object, the time or place of the action and so on.

65. What was the syntactic principle of the Indo-European languages? How were the different impressions combined? In what way did the Indo-European words indicate their relation to one another in conveying a verbal image?

In answer to the above query it could be said that in the early Indo-European dialects the synthesis was internal, *i. e.* no outside factor was employed as the Indo-European words, besides expressing an idea, could express as well the relation between various ideas. The means and methods, however, of expressing this relation were different.

In the first place, certain words like particles etc. had essentially a morphological denotation. Thus, in Sanskrit, for example, is a word like *iti*. When *iti* is placed at the end of a sentence the entire aspect of the idea is changed.

An original statement immediately turns into a mere quotation. Similarly there are words like *iva*, *hi*, *kila jātu*, etc. that connect the ideas of two words or two sentences.

66 But more important than such particles and conjunctions are the internal changes in the form and structure of words—nouns and verbs. These changes are the vowel alternations, terminations and the position of the accent. The early Indo European dialects freely and frequently employ all these factors. The vowel alternations are those of *e o zero* grade discussed in a former place. These changes occur in the terminational and preterminational elements. Thus in Sanskrit, for example, we have *pāt* a foot, *nom sing* which, for the oblique stem has the weak grade and we have *padáh*, *gen sing*. Similarly in Latin the *nom sing pēs* has *pedis* as its *gen sing*. The same could be observed in Greek, *nom pōls*, but *gen ped ós*. As in nouns, so in verbs the vowel alternation plays an important part by providing different stems. Thus the Sanskrit perfect has the strong grade in the singulars, the weak in dual and plural and the zero grade in the 3rd plural alone. *e g. papāta*, *petiva* and *paptuh*, 1st and 3rd *sing* 2nd *dual* and 3rd plural respectively of *pat-*, to fall.

In all the early Indo European dialects declension and conjugation are important morphological elements. Thus in a Sanskrit sentence *Rāmah pāniyam pibati*, the three words, whatever their position, express by themselves their relation to each other and to the general idea. In English on the other hand unless we say *Rama drinks water*, unless the three words are in the order as above, the idea would not be concrete. As in English so in all the modern Indo European dialects the order of words in a sentence is fixed. The above English sentence cannot have the same meaning if the order is changed as *Drinks Rāma water*, *water drinks Rama* etc. But in Sanskrit whether the order is *Ramah pāniyam pibati* or *pibati paniyam Ramah* etc the sense would not be changed at all. Each word has an *intrinsic* value. And hence termi-

nations—whether declensional or conjugational—have no existence apart from the stems to which they are appended. As already mentioned, the three elements of an Indo-European word *viz.*, the root, the suffix and the termination, have no individual existence.

Like terminations accent also is an important morphological element. The instances of *nomina actionis* and *nomina agentis* quoted in another part are good illustrations. Similarly in the Vedic dialect a sentence is characterised by an accent or its absence on the verb. An accented verb indicates a sub-ordinate clause; the absence of accent marks the case termination of the vocative.

67. The richness and variety—hinted at in the foregoing paragraphs—of the Indo-European morphology has not been maintained in its subsequent phases in India. The main reason is the obvious one—*viz.*, the tendency to simplify, the tendency to normalise. Thus while the Vedic and Sanskrit dialects had eight cases and three numbers in their Declensional system most of the modern Indo-Aryan languages have only two cases and two numbers. The *dual* number was the earliest to be lost. Even originally it appears that the *dual* number was not so much a distinctive morphological element as a substitute for the numeral "two". Thus the *dual* was mostly used when two things were already referred to or when the duality was obvious. In this way *dual* was used for natural pairs like eyes, ears, day and night etc. Thus the Vedic word *rōdasī* meant not "two heavens" (regions) but "heaven and earth" (*i. e.* the pair of heavens). Similarly Vedic *pitarā* did not mean "two fathers" but "father and his pair *i. e.* mother." Vedic, in this respect, resembles sister languages like Greek and others. *e. g.* Vedic *akṣī*, a pair of eyes; O. Slav. *oči*; Gk. *osse* etc.; Gk. *aiute* means "Ajax and his friend." This interesting but complicated nature of the *dual* number could not long endure. It was not only easier but more convenient and more consistent to use the numeral

"two". Th s ın the Asokan Inscript ons we have forms like "*duvehı*", *ınstru. plur.*, "by two" or "duve morā,' *nom. plur.*, "two peacocks," etc. Even as early as the Rıgveda itself *plural* ıs occasıonally found where *dual* ıs expected *e g.*

sa'm añjantu vı'śve de'vāh.

sa'm āpo hṛ'dayānı nau.

In the modern Indo-Aryan languages the numeral "two" has entırely dısplaced the dual number.

68 The more ımportant of the old Indo European morphologıcal elements ıs the case termınatıon ' The varıous relatıons between words ıs expressed by characterısed endıngs. These endıngs or termınatıons are of two kınds—one for the nouns and one for the verbs.

The I. E. noun had eıght cases wıth more or less dıfferent endıngs. By the tıme of the modern Indo Aryan languages these eıght are only reduced to only two, *viz.* the *dırect i e* the nomınatıve-accusatıve and the *oblıque*. The causes of this change are two fold: (1) phonetıc and (2) the presence of accessory words. Termınatıons, comıng as they do, at the end of words are the most lıable to phonetıc changes. We have seen ın the prevıous sectıons how the fınal part of a word forms phonetıcally the weakest. The fınal vowel loses ıts quantıty, the fınal stop and Vısarga are dropped and so on. Such a process, as wıll be explaıned, brought about confusıon. Let us take, for example, the Skt. word dēva- (*m*). Leavıng the dual asıde, the forms of the eıght cases are as follows;

	Sıng.	Plur.
Nom.	*dēvah*	*aēvāh.*
Acc.	*dēvam*	*dēvān*
Voc.	*dēva*	*dēvāh*
Instru.	*dēvēna*	*dēvaih* or *dēvēbhıh.*
Dat.	*dēvāya*	*dēvēbhyah.*
Abl.	*dēvāt*	*dēvēbhyaḥ.*
Gen.	*dēvasya*	*dēvānām.*
Loc.	*dēvē*	*dēvēṣu.*

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sa'm añjantu vi'śve de'vāh.

sa'm āpo hṛ'dayāni nau.

In the modern Indo-Aryan languages the numeral "two" has entirely displaced the dual number.

68. The more important of the old Indo European morphological elements is the case termination' The various relations between words is expressed by characterised endings. These endings or terminations are of two kinds—one for the nouns and one for the verbs.

The I E. noun had eight cases with more or less different endings By the time of the modern Indo Aryan languages these eight are only reduced to only two, *viz* the *direct* i e the nominative accusative and the *oblique*. The causes of this change are two fold: (1) phonetic and (2) the presence of accessory words. Terminations, coming as they do, at the end of words are the most liable to phonetic changes We have seen in the previous sections how the final part of a word forms phonetically the weakest. The final vowel loses its quantity, the final stop and Visarga are dropped and so on. Such a process, as will be explained, brought about confusion. Let us take, for example, the Skt. word dēva- (*m*) Leaving the dual aside, the forms of the eight cases are as follows,

	Sing	Plur.
Nom	*dēvah*	*aēvāh.*
Acc.	*dēvam*	*dēvān*
Voc.	*dēva*	*dēvāh*
Instru.	*dēvēna*	*dēvaih* or *dēvēbhih.*
Dat	*dēvāya*	*dēvēbhyah.*
Abl.	*dēvāt*	*dēvēbhyah.*
Gen	*dēvasya*	*dēvānām.*
Loc.	*dēvē*	*dēvēṣu.*

Of the above forms the *nom. sing.*, as shown elsewhere, has been, as early as the Pāli and Prākṛt stage, normalised as *dēvo.* The *nom.* and *voc. plur.* remain as *dēvā*, the visarga dropping out. Similarly, *dēvāya* and *dēvāt* too become simply *dēvā*; the *-y-* in one case disappearing through weakness, and the unexploded *-t* also dropping out in the other case. Thus on a mere glance we find that owing to the phonetic changes the *nom.* and *voc. plur.* and the *dat.* and *ablat. sing.* are all reduced to one form. To tide over such difficulties and confusion Pāli had recourse to pronominal endings. Thus besides *dēvā* Pāli has *dēvassa* and *dēvamhā* for the *dat.* and *ablat. sing.* respectively. Instances of such confusion might be multiplied at will. In the case of a feminine word like *strī*, for example, we find that as early as the Brāhmaṇas the *dat.* and *gen. sing.* have been confused into one (*viz.* the *dative*) form; and gradually *striyai*, *dat. sing.*; *striyāḥ*, *ablat.* and *gen. sing.* become *striyā* etc.

69. Changes like these would make it difficult to distinguish various case-forms and thus the different relations between words could not be either expressed or understood with accuracy. Even in Sanskrit itself eight case-terminations could not express many a nice distinction. Hence we find certain accessory words like *madhya*, *artha* etc. used for morphological purposes.[1] For instance we have *vanasya madhye*, "in (the middle of) the forest" for *vane*, *loc. sing* of *vana-*, a forest; for *tasmai*, *dat. sing.* we have *tasya arthāya tadartham* etc., "for (the sake of) him." Besides such accessory words there were certain other endings that expressed case relations; *e. g.* *-tas* in Sanskrit was used as an ablative case termination and replaced the regular termination *-āt* in the Prākṛt stage. *e. g.* *gharādo*, Skt. *gṛhāt*, "from the house," etc.

70. These two factors, *viz.* the phonetic changes and the use of accessory words, have greatly affected the cas

1. Cf. my article in the Annals of the Bhandarkar Orient Research Institute, Sept. 1930, pp. 375 ff.

forms of the modern Indo Aryan languages Though in Pāli and the Prākṛts the Sanskrit (i e original) case forms were often retained with the regular phonetic changes the tendency to use accessory words–or post positions as they are conveniently termed –is more frequently visible But these post positions in the modern Vernaculars are added to the old case forms as they were phonetically handed down As said above the *Nominative* and the *Accusative*, though confused into one, have been necessarily retained inasmuch as their value could be more directly comprehended within a sentence Post-positions were thus required to aid other case relations than the two above The *Instrumental singular* and *plural*, however, have been retained with the necessary phonetic changes in a number of modern Indo Aryan Vernaculars The reason was obvious Passive construction was not only regular in Sanskrit but became more frequent and preferable in later days with the result that the *Instrumental* case forms were preserved [1] The ending *-ena* of Sanskrit was more frequent as in the modern Indo Aryan Vernaculars, the original Sanskrit stems with different endings were normalised to stems in *-a*

The *dative, ablative* and *genitive* cases were all reduced to one form and later on post positions were added to this oblique form As to the origin of the oblique form of the modern Indo Aryan languages there are two opinions one which traces the oblique back to the *genitive* and the other, maintained by *Jules Bloch*, holding the old *dative* as the origin of the modern oblique The endings of the latter are *-ā* and *ā̃*, *sing* and *plur* respectively. As for the *plural* there would be little hesitation in taking it back to the Skt *gen plur* ending *-ānām* which becomes *-ānam* in Pāli, *-ānam* in the Prākrts and then through *-āam* it changes to *-ā̃* or *āṅ* in the modern I. A languages It is for the *singular -ā* that *Bloch* postulates the *dative* origin taking the Skt *-āya*, *dat sing*, through stages to *-āa* and *-ā* In the Apabhraṃśa, ' ' *at*

1 Cf *Beames*, op. cit , Vol II, pp. 262

endings are *-āha* and *-āha*. As these could not be phonetically taken back to Skt. *-āya*, *Bloch* believes that *-h-* is inserted in the former only to avoid the hiatus. In the parts dealing with the phonetic study we have seen that to avoid hiatus in the languages under consideration the more frequent tendency was to insert *-y-* or *-v-* than *-h-*. Besides, forms from some of the modern I. A. languages go to suggest that the modern oblique form derives from the Sanskrit *genitive* and not the *dative*. In the Kharoṣṭhi inscriptions, for example, the *genitive* forms end in *-asa*, the *-s* representing original intervocalic single *-s-*. That there was a *genitive* ending as *-asa* (*i. e.* with a single *s*) seems more than probable as the Romani has the ending *-es*, *gen. sing.* (This dialect changes, as shown elsewhere, a short Skt. *a* to *e* but in Skt. *asya*, Pkt. *-assa*, the *a-* would not be short). If we add to these facts the peculiar value of the Sanskrit *genitive* case which even in the early days expressed so many case-relations, the conclusion that the modern oblique—*singular* and *plural*—goes back to the original *genitive* would appear more reasonable.[1]

71. Just as a noun with the case-termination indicates the part directly played by itself *within* a sentence the verb, too, in its inflexion indicates the relation of all the words in a sentence *with the whole idea*. An inflected verb indicates the speaker (first person), the spoken to (second person), and the spoken of (third person). The Indo-European verb, concerned as it was mainly with the *action*, was capable of a number of stems with reference to the various *aspects* of that action as initial or final, unitary or repetitive etc. Thus each Indo-European verb could have one or more Present and Aorist stems, a Perfect and a Future stem. Each of these stems might have the five moods *viz.*, the Indicative, the Imperative, the Injunctive, the Subjunctive and the Optative.

1. Cf. also the Pāli form *devassa*, quoted above used in the *dative* case.

Besides, there were two voices to express the two different relations of the Subject with the Action And lastly each verb had three Persons and each Person had three numbers

But all this richness of expression flourished only at the cost of simplicity If it did not survive longer it was but natural The Vedic dialect was rich with the entire complex system just described But by the time of the Brāhmanas the Indicative mood alone was lucky to survive unchanged the Subjunctive was less frequently employed and then too only with the Present and Aorist stems, while the Optative and the Imperative were to be found only with Present stem. The Injunctive practically disappeared A further defection is visible in the Epics. Except the Indicative all other moods are losing ground and the former is taking on itself new uses of the lost moods Even in the Indicative tenses like the Past are losing many of their forms and participles have usurped their rôle In the Middle Indian Period the use of participial forms be came more frequent and favoured with the result that many stems of the modern Indo-Aryan dialects could be traced back to the Participles.

72 In expressing the various shades of meaning through a verbal form two morphological elements played an important part, *viz* the suffix and the termination The suffix was added to the root and this new form was the stem the terminations were added to the stems thus formed Before explaining further the one noteworthy exception has to be mentioned *viz*, the augment *a-* of the past, the Aorist and the Conditional forms—the only case in the Indo European dialects where a prefix plays a morphological rôle

Suffixes were not added to each and every Indo Euro pean root *-a-* was the characteristic suffix of the thematic—as those with a suffix are called—verbs In the Vedic and Sanskrit besides *-a-* we have *-aya-* as in *kath-aya ti*, he tells · *cārayati*, etc, *-ya-* as in *budhyati*, *naś-ya-ti* etc and sometimes a nasal as in *jā nā mi*, *badh-nā-ti* etc In the

case of the athematic verbs the root itself formed the stem to which terminations were added. In the Indo-Aryan languages a tendency, earlier enough, is visible to replace athematic by thematic verbs. Thus even in Sanskrit we have examples as the following: the root *sic-*, to sprinkle, is athematic. Its *third person plural* is *siñc-anti*. But on the analogy of forms like *gacch -a- ti* (*3rd sing.*): *gacch(a)-anti* (*3rd plur.*) :: *siñc -a- ti*: *siñc-anti-* (*the 3rd sing.*) has been created anew instead of **sinakti* as if the root *sic-* was thematic. This tendency was not an isolated one but a regular part of the attempt to normalise the various stems. Thus by the time of the Prākṛts we find that not only are the athematic replaced by thematic verbs but further the various suffixes of the latter are assimilated to the *-a-* stem of thematic verbs. Thus in a Skt. verb like *jā-nā-ti* the suffix *-nā-* is taken as part of the root and thus a new stem *jāṇ* is evolved which is conjugated like all other thematic verbs. This supposition is strongly supported by the fact that many of the modern Indo-Aryan Vernaculars have the root *jāṇ* to know e. g. Mar. *jāṇ-ṇe*, H. *jān-nā* etc. The Prākṛts show a number of examples where the different suffixes are brought to that in *-a-*. e. g.

Pkt. *up-pādei*, Skt. *ut-pād-aya-ti*.
Pkt. *ṇāse(d)i*, Skt. *na's-ya-ti*.
Pkt. *anubandhanti*, Skt. *anu-badh-n-anti*, etc.

73. Though the number of suffixes is thus reduced in later Indo-Aryan dialects it would be necessary to remember that in Vedic and Sanskrit the suffix played an important morphological part. T[illegible]on of the Causative and the Passive affords an [illegible]ion. In Sanskrit the causative sense was expres[illegible] the s[illegible] *-aya-* to the root Thus *gam-aya* fr[illegible] *nī*, to lead, an[illegible] so on. Though t[illegible]t in Sanskri[illegible] its history through[illegible] As men[illegible] [illegible]ed above all [illegible]luced [illegible] [illegible]- in roots l[illegible] *-aya-*

too, had to submit to its fate So the Sanskrit suffix *-aya-* lost its value Fortunately there were other cases, especially roots ending in *-ā-* which had the Causative suffix *-paya-* in Sanskrit *e g sthā-paya* from *sthā* to stand, *dāpaya* from *dā*, to give etc Such instances provided a new suffix and curiously enough *ā-paya-*was taken as a suffix In the Prākṛts and the modern Indo Aryan languages the Causative suffix is *-āv-* and and *-āv-* from this *-ā-paya- e g*, Pkt. *vin-n-av-edi*, Skt. *vijñā-paya* Mar *kar av* (i)*ne* Skt. *kār aya* etc.

Similar is the story of the Passive In classical Sanskrit the suffix -y- was added to the root to give a passive sense of the action The terminations added to this stem were always the Middle (*i e* Ātmanepada) ones In Pāli and the Prākṛts such passive forms are preserved though they are not as regular in the Prākṛts as in Pāli But two new factors were already at work to complicate the situation, those were (1) the loss of the Ātmanepada terminations and (2) the regular phonetic changes

In the early Indo European dialects the middle terminations were distinguished from the active (*i e* Parasmaipada) The value of the former was peculiar as the action denoted was always with reference to the agent Thus the root *ī*, to go, when used in the Ātmanepada means in the Vedic dialect "to go for something for oneself , *dada-mā-na*, giving for one self (i e receiving). From this use the middle terminations carried a passive or impersonal meaning in the next stage *e g* Gk *phero-mai*, I am carried In India, however, by the time of Pāli and the Prākṛts the middle terminations were lost Perhaps the passive suffix -y- undermined the value of the middle terminations Thus even those roots which always had the middle terminations in Sanskrit were conjugated as Parasmaipada roots in the Prākṛts *e g*

Pkt. *vattāmi*,	Skt. *varte*
Pkt. *pekkhāmi*,	Skt. *prēkse*
Pkt. *sohasi*,	Skt *s'obhase*, etc

This loss of the Ātmanepada terminations affected the growth of the Passive forms. For example, in the Prākṛts we experienced a sort of confusion. A root like *budh*—, taking the suffix –*ya*–, would have the same form, *viz*. *buddhedi* for both the active and the passive sense. Hence the later languages were in need of a new passive. This was supplied, as in the case of the causative, by roots ending in –*ā*. In Sanskrit the final –*ā* of these roots changed to –*ī* before the passive suffix –*y*–. *e. g* *sthā*, to stand, *sthī–ya–te* (3rd *sing. pass.*); *dā*, to give, *dī–ya–te*; *mā*, to measure, *pass. mī-ya–te* etc. In such forms –*īya*– was supposed to be the passive suffix and it was added on to all the roots. *e. g.* Pkt. *ciṭṭha*–, pass. *ciṭṭhīyadi*, Skt. *sthā*, Pkt. *suṇedi*, pass. *suṇīyadi*, Skt. *s'ṛṇoti* etc. When we come to the modern Indo-Aryan Vernaculars the process of simplification and normalising is gone much further. As mentioned above the use of participial forms became more frequent as time went on. In the past tense, even in Sanskrit itself, the participles had displaced the verbal forms. The invasion gradually extended to other tenses. *e. g.* *gataḥ* and *gatavān*, past and present participles of *gam*–, to go, are found more frequently than and in place of *a–gacchat* etc. In the modern languages, as will be shown below, these participles provide more stems. In the passive, too, the modern languages use forms based on the earlier participles *e. g.* Mar. *tyanī tẽ kelẽ*, he did it, *lit.* it was done by him, where *kelẽ* is derived from Skt. *kṛta*, or more accurately from the Pkt. participle *kailla*.

Thus we find that the suffix is an important morphological element both in the case of nouns and verbs—and more so with the latter. Though in the modern vernaculars the suffix has disappeared the new forms are derived from the forms in the Prākṛts which used the suffix as a morphological element.

74. Like the various stems the original Indo-European terminations too were simplified by assimilation and reduction.

The terminations of the nouns have been treated above. Unlike the declensional the conjugational terminations were varied and various. In the first place there were *two* kinds of terminations, one *Active* and the other *Middle*, these are represented in Sanskrit as Parasmaipada and Ātmanepada respectively. The Sanskrit designation is sufficient to indicate the distinction between the two kinds of terminations. When the subject was interested more personally in the action, the middle—*ātmane i e* for oneself — terminations were added to the verb. It has been illustrated above how the middle terminations indicated a passive sense later on. In each of these two varieties there were again two kinds—*primary* and *secondary*. In structural form the primary differed from the secondary inasmuch as they (the primary) had a sonant -i at the end. The Vedic and Sanskrit dialects in India show these terminations in all their details. Thus the terminations in these two dialects are as follows,

I. Active		II. Middle	
primary	secondary	primary	secondary

e g The following are the terminations as mentioned of the Present-Aorist stem of the Indicative

Active Primary

	sing.	dual	plural
1st pers	*–āmi*	*–ăiah*	*–āmah*
2nd. pers	*–si*	*–(a)thah*	*–(a)tha*
3rd pers	*– ti*	*– (a) tah*	*– anti*

Active Secondary

1st. pers	*– am*	*– āia*	*– āma*
2nd. pers	*– s*	*–(a)tam*	*–(a)ta*
3rd pers	*– t*	*–(a)tām*	

Middle : Primary

	sing.	dual	plural
1st. pers.	*– e*	*–āvahe*	*–āmahe*
2nd. pers.	*– (s)e*	*– ethe*	*– dhve*
3rd. pers.	*–(t)e*	*– ete*	*– ante*

Middle : Secondary

1st. pers.	*– i*	*– āvahi*	*– āmahi*
2nd. pers.	*–(th)āḥ*	*–ethām*	*– dhvam*
3rd. pers.	*–(t)a*	*– etām*	*– anta*

The distinction between the various terminations was minutely observed in the Vedic dialect. The difference between the primary and the secondary is not as clear-cut as that between the active and the middle terminations. In actual use, however, the secondary terminations are strictly confined to the Past tenses and the Optative mood while the Subjunctive had both the primary and the secondary endings. e. g.

Skt. *s – yā – t*, Opt.
Vedic. *asa – ti* } *asa – t* }, Subj.
Vedic. *bhara – t* } *a – bhara – t* }, Past. etc.

The history of the terminations in the Indo-Aryan dialects is as follows: In the first place, the middle terminations—both primary and secondary—were lost as early as the age of the Prākṛts. When the verbal form indicated not so much the aspect (as in the Vedic dialect) as the "tense" or time, th middle endings had no special purpose to serve. Similarl the need for the secondary terminations too was obliteratec These terminations, as said above, were restricted to the Op tative and Subjunctive among the moods and the Past anc Aorist etc. among the tenses. At the time of the Prākṛts the moods other than the Indicative disappeared : while the past tenses were completely displaced by the participles. The use of participial forms begun at the period of Classical Sanskrit

reached its limits with the modern Indo-Aryan Vernaculars. *Thus with the disappearance of moods like the Subjunctive and the Optative and tenses like the Past the secondary terminations were entirely missed in the modern Indo-Aryan languages.* We have to deal, therefore, only with the [illegible] primary terminations of the Present Indicative.

There is nothing important or [illegible] in the [illegible] development of these terminations. The following [illegible] shows, as an example, some of them as they appear in the [illegible] Indo-Aryan dialects; the dual, of course, [illegible]

Singular

	Skt.	Pa.	Old [illegible]	[illegible]	[illegible]
1st. pers.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2nd. pers.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3rd. pers.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Plural

	Skt.	Pa.	Old [illegible]	[illegible]	[illegible]
1st. pers.	[illegible]	[illegible]	[illegible]		
2nd. pers.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3rd. pers.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

As a matter of fact the modern [illegible] much to do with these terminations [illegible] responsible for this peculiar [illegible] the participial form even in the Present [illegible] of the root "to be" — [illegible] the Past and Future tenses were [illegible] participles in *-ta* and *-tavya* the Present [illegible] more frequently expressed by the Present [illegible] In the initial stages these participles were used [illegible] Thus in the Prākrits for *karedi*, he does, we would [illegible] often *karenda hodi*, he is doing, in the sense [illegible] expressions [illegible] in the modern languages. In Hindi, for example, all [illegible] were expressed by the participial forms with the auxiliary verb "to be". The Hindi old present [illegible]

the 1st pers. sing. But in modern Hindi one would hear phrases as the following in the tenses marked against them.

1st Pers. Sing.

mai	*kartā huñ*	I am doing, I do.	Pres.
,,	*kartā thā,*		Past.
,,	*kartā huṅgā,*		Future.

In Marāthi too, the use of the root *as* "to be" with the participles became more frequent.[1]

Though the terminations are thus dispensed with they have not entirely disappeared. If in the modern languages they are not added to each and every stem individually they are still to be found with the auxiliary verbs. Besides, the number of stems has been greatly reduced. When it is said that certain tenses and moods have disappeared it does not mean that the speakers of the modern Indo-Aryan Vernaculars could not express those particular aspects of an action. Only the manner has disappeared. While different stems and different terminations expressed different aspects in the early dialects the modern dialects have attained regularity and simplicity in expressing all the voices, all the moods, and all the shades of meaning.

75. Besides suffix and termination there were a fev other morphological elements. Reduplication, for example, in the case of verbs conveyed an iterative sense or specia emphasis.[2] *e. g.*

Skt. *jó-hu–vāna–ḥ*, one who keeps on calling

or *ukthá–ukthe Sō'ma I'ndram mamāda,*

at *each and every* Uktha hymn the Soma pleased Indra. etc.

Accent, too, as has been shown in another part, affected the meaning of a phrase. As the accent disappeared in Sanskrit, Pāli and the Prākṛts *the order of words by itself* acquired a morphological significance. Thus compound words

1. For details see the author's article op. cit. pp. 385 ff.
2. Cf. *Meillet*, p. 150.

in Sanskrit showed the relation of the individual words with each other according to the order in which they were compounded. Generally speaking, by the time of Prakrits, Reduplication, Accent, Compound words etc. cease to have any interest. But to a student of the history of the growth of Indo-Aryan languages they provide an important field of research.

76 The study aimed at in these pages ends here. It started with the Indo European language. Language ultimately being a group of words (for our purposes), the Indo-European word was analysed both internally and externally. From the first point of view it is a group of sounds and from the second it has a value. In tracing the study historically it was found that there was no change either in the sounds or in the values of the early Indo-European words. The essentialities of the early dialects still remain in the modern Indo-Aryan dialects. The growth is one more in time than in spirit.

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APPENDIX I

PHONETIC LAWS



Under Section V we have *referred, in outlines,* to the general tendencies of the *growth* of language. A reference was *also made* to the earlier attempts of scholars in codifying such *tendencies* as Phonetic Laws. It has been shown as well that these Laws were not laws at all in the accepted sense of that word. This fact has brought out the famous remark that Phonetic Laws work *blindly*, (see Vendryes, p 50) i e. Phonetic Laws are laws that can be broken with impunity. That Phonetic Laws are not absolute injunctions could be well illustrated by the following description of Grimm's and Verner's Laws.

Grimm's Law —

In a comparison of the Gothic sound system with that of Sanskrit, Grimm observed that certain Sanskrit sounds were always represented by certain *particular* sounds in the Gothic. For example, the Sanskrit unvoiced un aspirates were found as corresponding spirants in the Gothic, i e Skt *p t, k* appeared as *f, þ hw* respectively e g

Skt	*tráyah,*	Goth	*þreis,*	Eng	*three*
Skt	*bhrā'tā,*	Goth.	*broþer,*	Eng	*brother*
Skt	*vártate,*	Goth.	*wairþan*		
Skt.	*rinákti,*	Goth	*leihwa*		
Skt	*kah,*	Goth	*hwas*		
Skt.	*pā'dam,*	Goth.	*fotu,*	Eng.	*foot*
Skt.	*páth,*	Goth.	*—faþs,*		etc

Verner's Law —

Grimm's Law explained a number of cases and it appeared as if, for once, a Phonetic Law was an absolute law. But soon enough rebellious examples were noticed. For Skt *pitā'* is *fadar* in Gothic and not *faþar* as it

been according to Grimm's Law. It should be remembered here that a Phonetic Law, as said in the text, is a law formulated and determined by circumstances alone; and in the case of Grimm's Law that scholar had overlooked one circumstance *viz.* in all his examples the Sanskrit unvoiced un-aspirates were *either initial* or *immediately preceded by an accent.* It was Verner who noted this and showed that Grimm's Law was law only under those circumstances. That law thus amended is known as Verner's Law. Under other circumstances Skt. *p, t, k* were represented as *g, d, b* in the Gothic; *e. g.*

Skt. *jantu'ḥ,* Goth. *kuni* (probably older **kund*—)

Palatal Law :—

A *similar case might* be *cited in connexion with the* Vedic vowels where certain phenomena, observed in a regular but exceptional way, came to be recognised under a Phonetic Law. For a long time it was believed by scholars that the Indo-European vowel-system was faithfully represented in the Vedic alone. Accordingly, in the numerous examples where Greek and Latin showed an *e* or *o* for the Vedic *a* the former were suspected as subsequent innovations. *e. g.*

Skt. *ghana -ḥ,* Gk. *phónos*
Skt. *dadars'a,* Gk. *dedorke* etc.

(For further examples see pp. 43–44 and 79–80 *ante.*)

On a comparative study of the consonantal system, however, of these earlier Indo-European dialects, a complication, so to say, arose to disturb the observations like those above. The original Indo-European velars had, as mentioned in the text, a two-fold development ; one in the Western and one in the Eastern group of dialects. In the former a *-w* sound as in Latin *qu* was preserved while in the case of the latter the development resulted in simple gutturals like *k, g,* etc. This two-fold development was observed to be regular *as far as phonetic developments could be*

regular But the Vedic however showed a further peculiarity in some cases in the place of simple gutturals it had palatals. On a comparison with other dialects it was found that in all such examples where the Vedic had palatals instead of gutturals, Greek, Latin etc had an *e*, *i e* a palatal vowel The suspicion on observation was justified that before palatal vowels the Vedic changed the original velars to palatals This, indeed, was a revolutionary discovery As the Vedic itself had no palatal vowels in such cases, (but an *a*) the possibility was suggested that the Greek and Latin *e*, *o* might be the original Indo European vowels and that the Vedic representation might not be faithful The possibility became a certainty and the Vedic phenomenon had to be recognised as a peculiar but regular one. It was known as the Palatal Law, *before original palatal vowels the Vedic changed the gutturals to palatals e g*

Skt. *reka h*,	Gk *loipos*		
but Skt *rireca*,	Gk. *leloipe*,	Skt *aricat*,	Gk. *elipe*
Skt *kâtarah*,	Gk *póteros*,		
but Skt *catvārah*,	Gk *tettores*		
Skt. *cid*,	Gk. *ti*,	Lat *quid*	etc

APPENDIX II

INDO ARYAN AND DRAVIDIAN

Under Section VI a reference has been made to a Family of languages The object of this appendix is, by a concrete example and comparison, to render that concept of the Family of languages easier

We shall consider two modern Indian Vernaculars—one from the Indo Aryan and the other from the Dravidian branch As a matter of fact, in certain cases—*e g* say ' '
Kanarese— the mutual influence has been so
time South Indian grammarians went

Marathi, as one of the five Dravidian languages (*pañca-drāviḍa*) as then understood.

In the first place, Sanskrit has greatly influenced all the Dravidian languages with the result that the vocabulary of the latter is full of Sanskrit words—directly borrowed (*tat-sama*) or handed down in common usage (*tad-bhava*). This feature has been further helped by the writings of authors equally adept in the employment of Sanskrit as of Dravidian languages. Besides, from the early days, the Wheel of Fortune has brought the people speaking these different dialects into political and social contact. Even the speech-habits of these people do not differ. Though the sound-system of Marathi and Kanarese is not exactly the same yet a speaker of the one feels no appreciable difficulty in pronouncing the sounds of the other. The earliest trace of such a situation is supposed to be the cerebral sounds of Sanskrit, sounds foreign to the Indo-European dialects; and Dr. Earnest Trumpp detects Dravidian borrowing here.[1] Besides pronunciation and vocabulary, syntax, too, sometimes agrees. Thus it appears, on the surface, pedantic and unnecessary to hold that Marathi and Kanarese belong to two groups of languages differing from one another.

It is rather unfortunate that the difference between the two languages could not be explained more happily than by using the apparently vague phrase, *viz.* that the *genius* of the two languages differs. What is meant by *genius* is not only a series of broad facts, but the *cumulative characteristic* of details.

(1) The "Verbal image," to use another technical expression, in the case of these two speakers essentially differs; *i. e.* the mode in which an idea is understood and conveyed is different in the two languages. In other words, grammatical forms in each of these languages are formed in a particular

1. For all the references and further details of this Appendix *vide* the author's article in the *Annals of the Bhandarkar Oriental Research Institute*, 1930, pp. 374–397.

way and have a particular significance In the case of Mara
ouns and
a noun
of termi

nations e g Marathi *phal*, *neu*, fruit

	Sing	Plur
Nom	*phaḷ*	*phale*
Dat	*phaḷā-*	*phaḷā-* etc

The situation in Kanarese (and other Dravidian languages) is different. Kanarese has no inflexional system in the case of verbs only pronominal endings are added to the participial forms Secondly, unlike in Marathi, declension in Kanarese shows only one set of nominal terminations both in the singular and the plural e. g

Kanarese *gida neu.*, a tree

	Sing	Plur
Nom	*gida (v) – u*	*gida – (gal) – u*
Instru	*gida – d – im*	*gida – (gal) – im*
Loc	*gida – d – oḷ*	*gida – (gal) – ol etc*

The suffix -*gal*- shows that the form is plural [Languages in which different forms are determined, as in this case, by suffixes are known as "agglutinative,' while a language like Marathi is known as " inflexional. *]

(2) Secondly, in spite of the common vocabulary of the literate or more educated, the every day vocabulary of the average speaker in the case of both these languages shows points of essential variation Words, common and most frequent are, in form and origin, peculiar to each language Such words, for example, are the pronouns and the numerals.* The pronouns and the numerals in Marathi agree as closely with those in Hindi, Gujrati, Sindhi etc as they differ

* Vide Dr Gune's *An Introduction to Comparative Philology*, pp 82 ff, also cf the Tables on pp 90-2

widely from those in Kanarese or Telugu or Tamil. That words used so frequently and expressing ideas so elementary as person or number should have nothing in common would be unintelligible except by taking the two languages as belonging to two different stocks.

(3) Marathi (and languages derived from Sanskrit) retains a distinction in gender. Though the original three genders of Sanskrit are not distinguished in each and every modern Indo-Aryan vernacular, the peculiar function and characteristic of the old gender are not lost in any one of them. The peculiarity consists in the fact that in Sanskrit, (i) the gender belongs to the words and words alone, irrespective of their meaning, and (ii) often times the gender determines the meaning. e. g.

Skt. *dāraḥ* is *masculine* though it means "wives:"
Skt. *mitram* is *neuter* and means "a friend;"
Skt. *āmraḥ, masc.*, is the mango *tree*; while,
Skt. *āmram, neu.*, is the mango *fruit*.

This peculiarity of the gender, important as it thus is, does not obtain at all in Kanarese or other Dravidian languages. As a matter of fact, these latter languages can be said to have no gender (distinction) at all. At least it does not belong to words as in the case of Sanskrit and derived languages. The Dravidian conception of gender is rather a device to distinguish the thinking from the unthinking and inanimate world. Thus except the grown-up men and women, each and every object in the world—living and non-living—is neuter. Grown-up men are masculine; grown-up women are feminine—but only in the written language! In the spoken language a woman is more often referred to in the neuter gender, thus betraying her social position.[1]

1. This is not a phonetic law nor a Law of Philology, but is mentioned here only to illustrate the influence of Social Life on Language.

(4) This is no place to pile up instances as to how Marathi and Kanarese differ from one another The above description only shows how a given language might differ from another in some essential details, agreeing at the same time with some other language in the same details. Besides the three points mentioned above, another illustration might be given to show how the "verbal image" presents itself differently in different languages. In Marathi, in Sanskrit and generally in the Indo European dialects two ideas could be understood and conveyed *together* if they are related This is done by the relative pronouns like Eng *he – who*, Skt. *sah – yah*, Mar *to – jo* and so on. But in none of the Dravidian languages are there any relative pronouns. Ideas, even when related, have to be expressed separately. Though the Indo European feature is, now and then, imitated and participial forms are used as conjunctive adjectives, though sometimes, as in Kanarese, the Interrogative pronoun is used relatively with the personal pronouns, the practice is not at all to be found in the spoken language

Thus languages, when studied in their details, would show peculiarities and characteristics. When two or more languages agree in such peculiarities and characteristics, they are grouped as belonging to a Family; the same blood, the same temper, the same features are obtained in all of them. Their career might turn out differently No two brothers can rid themselves of the blood running common in their veins of their inherited temper or features, though one might flourish as a prince and the other perish as a pauper.

APPENDIX III

THE STUDY OF LANGUAGE: ANCIENT & MODERN

[For the general information in this Appendix, I am mainly indebted to the following ;

(1) Professor R. L. Turner.
(2) Dr. Laxman Sarup's edition of Nirukta.
(3) Dr. Siddheswar Varma's *Critical Studies in the Phonetic Observations of Indian Grammarians.* (*Crit. Stud. Ind. Gram.*)
(4) Dr. S. K. Belvalkar's *Systems of Sanskrit Grammar* (1915). (*S. S. G.*)]

The study of Philology—of Language, its origin, structure, and growth—is not a new or peculiar contribution of the modern days. Perhaps it would be expected that Philology, as a Science, is the idea of our days. But a glance at the literary activities of pre-Christian India would show that some 800 years before our era, the study of Language was conducted along scientific lines in India.

It is not possible to describe here in details the various writers of ancient India and their treatises on Philology. N is such a detailed study relevant to the subject-matter of t Appendix which is to compare and contrast, in broad outlin the methods of Ancient India and modern Philologists.

The study of the Vedas was a delight, an inspi tion and a duty from the earliest days. The vario Vedic schools—*caraṇas* or *pariṣads*—conducted this stu from various points of view. As the Vedic lore consist mostly of hymns, and as most of the hymns were be cited or recited at sacrificial performances, great ca had to be taken for pronunciation and accentuation. Lat on, as the Vedic hymns were removed further and furth backwards by the lapse of time, the different schools had include, in the course of their studies, instruction on pronu

ciation and accentuation This *instruction* was handed on in the form of *S'ikṣā* texts. The original contents of these *S'ikṣās* must have been simple rules on pronunciation, accentuation etc That such was the case seems more probable from earlier references like the following

शिक्षां व्याख्यास्यामः। वर्णः स्वरः। मात्रा बलम्। साम सन्तानः। इत्युक्त· शिक्षाध्याय । (*Taitt. Upan.* I 2)

The following from Durgācārya's introductory remarks to his commentary on Yāska's *Nirukta* would bear out this supposition

शिक्षा तावत् "आत्मा बुद्ध्या समेत्यार्थान्" इत्येवमादिना क्रमेण स्वराव्यञ्जनाभिव्यक्तिरक्षण .... यथाव्येवमधीतस्य च स्वरसौष्ठवयुक्तस्य यज्ञकर्मणि प्रयोग इत्येवमाद्यर्थजातं निरुवाच[1] ॥

This original purpose of the *S'ikṣa*, *viz* to enable a correct chanting (*sāma*) with the knowledge of correct pronunciation (*svarah*), aided by proper accents (*mātrā*), had, it appears, to be widened after a further lapse of time. Pronunciation could not be the same now as it must have been at the time the Vedic hymns were composed, and hence the need was felt to normalise *it* for the purpose of recitation. This was done by the study of the various sounds or, to be more reasonable (*i e* accurate), by an analysis of the various sounds It is with reference to this stage that Dr Varma says—

"In the next stage the scope of *S'ikṣā* was further developed into 'general phonetics' ... *S ikṣā* emerged from the school master's vocation to those general principles of phonetics which were further applied by the *Prātis'ākhyas* to the various Vedic texts with which they were concerned'[2]

S ikṣā, as General Phonetics, was thus studied in the various schools—(*caranas* or *parisads*), but these schools, in their turn elaborated the *S'ikṣā* rules by applying them to

1 Bhadkamkar's Edition, p 25
2. *Crit Stud. Ind Gram*, p 5

the particular Vedic works with which they were concerned. These enlarged treatises are known as *Pārṣadas* or *Prātiśākhyas* and Yāska refers to them under the former title in I. 17.

Yāska's statement about these *pārṣadas* or books of *pariṣads*, is interesting as it gives us a hint as to how studies were conducted. In I. 17, [illegible] that the *pārṣadas* were based on the Pada [illegible] पार्षदानि). The Pada-Texts [illegible] various words, the different [illegible] nations of the hymns were [illegible]

this purpose The Vedic dialect apart from its grammatical structure, was fairly un intelligible Many words it is natural to expect must have been obsolete many more words must have either lost or changed their form and significance All this necessitated a new line of study The obscure and difficult words had already been collected (*Nighantus*) and probably some sort of dictionaries was current But the inquisitive Aryan of those early days was not satisfied with merely learning the meaning of words from dictionaries He would rather find out why and how words had meanings and why and how *particular* words acquired *particular* meanings From such a thirst for correct knowledge arose the Science of Etymology But till we come to Yaska we shall have to imagine a host of attempts—both ridiculous and reasonable—in this direction[1] The number of authorities referred to by Yaska is an eloquent testimony to the attempts[2]

In Yaska however we find not only a continuation but a systematisation of this study He is not satisfied with merely suggesting his own derivation for the list of difficult words He studies words not individually but as the limbs of the body of Language In other words he has raised the study of Language to a Science. Though his work–*Nirukta*–is as the title suggests mainly a book on Etymology we find in it apart from the study of words a study of Language (the Vedic of course) its origin its structure and its growth. The following facts would reveal the scientific attitude of Yaska —

(1) Yaska realises that Language in general is a medium of expression and it should be defined as such From this point of view gestures etc can be said to be Language But the verbal language is the only one that deserves to be studied as it is used for all practical purposes (*vyavahara*) and the superiority of the verbal to all other media of expression is

1 *Cf Yaska s complaint in ii–3*
(निर्ब्रूयात्) न अवैयाकरणाय, न अनुपसन्नाय, न
2 S S G pp 6–8 footnote

due, according to Yāska (i. 2), to two facts; (i) the relation of words and their meanings is beyond the caprices of the individual; in other words, it could be said that the relation is involuntary, invariable and hence fixed, *vyāptimat-tvāt*; and (*ii*) words are the only media where a maximum result is possible with a minimum effort, *i. e.* words alone are capable of brevity and subtlety, *aṇīyas-tvāt*;[1]

(2) Yāska has attempted to study the origin of Language, and in this respect he belongs to the root-theory school *i. e.* the school which holds that all words have a radical derivation;

(3) Yāska analyses the structure of Language; according to him, the ultimate parts of speech are noun, verb, preposition and particle;

(4) Finally, Yāska recognises the fact that Language grows, and that in this growth result different dialects. Though he does not actually express such an opinion, the reference in ii–2 to *kāmboja* and *prācī* pronunciation justifies one in such an interpretation.

Besides the above general features, the attempts of Yāska to form general rules[2] lead to the conclusion that Language is here studied *as a Science.*

It is not the object of the foregoing paragraphs to convey the impression that the Study of Language, as conducted in the modern days, is already anticipated by the ancient grammarians and etymologists of India. The ancient study, though promising lines of scientific treatment, has certain limitations, and differs as well in outlook from that of the modern scholars.

In the first place, it is not pleasant to remember that, in spite of the critical enthusiasm and open-minded learnedness

1. Dr. Sarup (Introduction, p. 64) interprets *vyaptimat-tva* and *aṇīyastva* as "comprehensiveness" and "minuteness" respectively; however, I have taken the liberty to differ.

2. Vide Dr. Sarup's Introduction, pp. 54-58.

bestowed on it by Yāska and others, the study of Language was not continued thereafter This fact is significant in as much as it shows that the study, however scientific in intention and outlook, is based not so much on the *Science of Language as on the sacredness and importance of the Vedic hymns* As the Vedic social life underwent a change, as the Vedic theology developed into a system of philosophy, as the Vedic sacrifices became more and more formal, the study of the Vedas lost an important part of its significance. By the time of the great grammarian Panini, it is found more essential to know the grammar of the *bhāsā*, the Classical Sanskrit as it is called now,—a language in which works of fresh interest of fresh outlook, embodying the progress and evolution in social life—, were written

Secondly, the ancient study was *static*, so to say It was not interested in the origin and growth *of Language* as in the origin and growth *of the Vedic language* In this narrow field pronunciation, accentuation and grammar were studied and systematised. There was not so much speculation (probably there was none) as to whether Language was a continuity as we understand it now, as to whether the facts observed about the Vedic dialect could be true for languages other than the Vedic and for times other than the Vedic age

On a closer observation however, it appears that such an attitude could not have been possible in the then existing conditions Besides the sacred dialect of the hymns, these early enthusiasts did not and could not, turn their attention to other dialects and thus lacked one of the essential requisites of scientific study *viz* the observation of more and more facts

It is not necessary to describe here in detail the outlook and tendencies of the modern study from the early days of the nineteenth century [1] Two points should be noted, however,

1 It would be to the advantage of the readers to refer this connexion, to Chapters II-IV of Jespersen's ' ' 1928 edition

(i) this study originated in Europe where pioneering and scientific outlook had been established for over 200 years; (ii) the discovery of Sanskrit gave to it a fresh impetus. With this in our minds it would not be difficult to understand the following summary:

(*a*) The comparative observation turned the study into a historical one;

(*b*) In the hands of the German scholars of the 19th century, fired as some of them were by the ideals and implications of the French Revolution, the conception of *a brotherhood of language* as well as of its *dynamic nature* arose[1]—and the study of Languages assumed a philosophical dignity and significance.

(*c*) During the latter years of the century when the Darwinian outlook was the new inspiration, Language was once more viewed as an *evolutionary process;* it was, once again, more a Science than a Philosophy. Just as the observations of other sciences found system and regularity in their respective fields and established truths true for all times and climes, the students of Linguistic study too were bold enough to enunciate certain laws. The fact that long after Grimm himself it was Max Müller who first popularised the (significant) phrase "Grimm's Law" aptly illustrates the new tendency.

(*d*) Through these various stages arose the conception *of Language, over and above the different languages*, of the part it plays in social life and hence of its importance and aid in the reconstruction of the story of man's adventure on this globe.[2]

1. Cf. Jespersen, pp. 56-7.
2. Cf. Section 18 above on the "Scope of Comp. Grammar."

GENERAL INDEX

(Figures refer to the number of pages)

INDEX OF WORDS

(In the following list Sanskrit, Greek and Latin words quoted as parallel in the text are collected Sanskrit words quoted in the Indo-Aryan section are not to be found here. In certain cases, derivatives are omitted for fear of unnecessarily enlarging the lists Figures on the right indicate the number of page).

A. Sk. words

B. Gk. words

C. Latin words

ERRATA

P. 12, *l.* 19th, *for* Skt. janāsaḥ (जनासः) *read* janasaḥ (जनसः)

P. 39, *l.* 2nd, *for* Gk. trēs ; Lat. tres *read* Gk. treis ; Lat. trēs.

P. 40, *l.* 2nd from the bottom, *for* Skt. vakṣyam *read* Skt. vakṣyāmi.

P. 42, *l.* 5th from the bottom, *for* Lat. iccur *read* Lat. iecur.

P. 79, *l.* 9th, *for* Skt. aamaḥ *read* Skt. damaḥ.

P. 133, *l.* 28th, *for* aēvāḥ *read* dēvāḥ.

P. 137, last line, *for* baah-nāti *read* badh-nā-ti.

P. 139, *l.* 3rd from the bottom, *for* Pkt. vattāmi *read* Pkt. vaṭṭāmi.

P. 155, *l.* 12th, *for* अभिव्यक्तिलज्ञणं *read* अभिव्यक्तिलक्षणं.

P. 157, foot note, *for* अवनुपसन्नाय *read* अनुपसन्नाय.

Though there are already a number of editions of this work in the field, yet the real need for another of this kind has been very clearly shown by the editor. This publication has *great merits*. It is free from the palpable errors so often found even in such valuable editions as those of the Nirnaya Sagar Press or even the Vani Vilas Press. It *combines many of the good features of two of the best editions*, those of the Anandasrama Press and the Mysore Government Oriental Library. *Among the improvements* may be pointed out the following —

1. Where *different readings* equally good or authoritative are found, *one is adopted* the other or others being printed within brackets. Incorrect readings are completely left out.

2. In no other edition is so much attention paid to *division into paragraphs and to spacing between words* and word combinations, besides punctuation, so as *to remove the* causes of confusion or doubt.

3. Two statements one of *reference to the Vedanta Sutras* and another of *parallel passages in the Upanishads* are given which will be found very useful.

4. The index of the first lines of the Slokas is also there, though it is not peculiar to this work. It is, however, not clear why the learned Professor has omitted the equally useful appendix found in other editions—an Index to the words of the Gita.

The editor really deserves to be warmly congratulated on the *scholarly service* he has rendered in bringing out so *accurate and reliable an edition* of Sri Sankara's Bhashya on the Gita and that as a very handy volume. We wish the publication as wide a circulation as possible.

The observations of the editor in his preface may not be [illegible] ara. But as he does not [illegible] do not call for any special

ORIENTAL

Some reviews on Prof. R. V. Jahagirdar's "An Introduction to the Comparative Philology of Indo-Aryan Languages."

Dr. V. S. Sukhtankar, M.A., Ph. D., Poona, observes in his letter of 25th September 1932.

"Pray accept my best thanks for the presentation copy of Mr. Jahagirdar's *Introduction to the Comparative Philology of Indo-Aryan Languages* published by you. I have read the book with great interest, and I am glad to say that notwithstanding some minor deficiencies and blemishes it is admirably suited for the purpose for which it is primarily intended. I am sure the Indian Student will find in it a much needed help and a reliable guide in the course of his studies. The exposition is clear and the illustrations apt. Considering the technical difficulties and the low price at which you are offering the book, the printing may be said to be quite creditable. I trust the little book will meet with the warm and enthusiastic reception which it deserves. It is unquestionably an improvement on the existing Text-books, which are little adapted to the needs of the Indian Student, and the Author is to be warmly congratulated on the production of a very attractive and readable account of the long and complicated history of the Indian Languages."

The Editor, "The Hindu", Madras, writes in his Literary and Educational Supplement of the 19th September 1932.

"Mr. Jahagirdar has contrived to produce a text-book on Philology out of the ordinary run. It deals not only with the general principles of comparative Philology but traces the development of Indo-Aryan Languages in India. Students of Sanskrit will find this book useful."

267, Hornby Road, BOMBAY